CONTENT AREA READING 3081

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Full or Half Credit Elective Course Option
Taught by certified teacher of language arts, mathematics, science, or social studies

Course Description: The students will learn, practice, and internalize strategies that are essential life-long learning skills for reading, writing, understanding, and interpreting content specific materials. The strategies will be applied in the content areas of English, mathematics, science, and social studies. Skills will include previewing and reviewing print and non-print text, activating prior knowledge, processing and acquiring new vocabulary, organizing information, understanding visual representations, self-monitoring, and reflecting.

Strategies for Explicit Instruction

1. K-W-L Plus

2. Chunking

3. DR-TA
   - Read Aloud
   - Think Aloud

4. SQ3R
   - Retelling

5. QAR

6. Graphic/Visual Organizers
   - Venn Diagram
   - 2 Column/ T-notes
   - Discussion Web
   - Cause and Effect Chart
   - Sequential Order
   - Concept Maps

7. Writing to Learn
   - Academic Journaling
     - Response Journals
     - Double-Entry Journals
     - Learning Logs
   - Point of View Study Guides
   - Gist Statements
   - Express Writing
   - Exit Slips

8. Vocabulary Development
   - Concept Maps/Webs
   - Word Bench
   - Word Sorts

Supporting Strategies for Teacher Use

1. Anticipation Guide
2. Reciprocal Teaching
3. Guided Reading Procedure
4. Guided Reading
5. Interactive Reading Guides
6. Jigsaw
7. Visual-to-Print

STANDARD

AND

LEARNING EXPECTATIONS

STANDARD

Standard: The student will develop the reading skills necessary for word recognition, comprehension, interpretation, analysis, and evaluation of print and non-print text.

Learning Expectation: Develop independent pre-reading strategies to facilitate comprehension.

a) Develop strategies to access prior knowledge and to make predictions.
b) Preview text for format and key elements.
c) Identify and define content specific vocabulary.

Learning Expectation: The student will use interactive strategies to derive meaning from text.

a) Use interactive strategies to access vocabulary by decoding words or identifying words in context.
b) Use interactive comprehension strategies to enhance understanding and to respond to text content.

Learning Expectation: The student will use appropriate strategies to respond to text.

a) Summarize content and filter relevant information in order to build a knowledge base.
b) Interact with text to connect to and form personal interpretations.
c) Interpret ideas, recognize logical relationships, and draw conclusions based on sufficient evidence.
d) Make connections to previous learning, other content areas, and personal experiences.

Learning Expectation: The student will evaluate and reflect upon learning strategies utilized to make meaning from text.

a) Discern reading strategies appropriate to text and the individual.
b) Apply the strategies and processes learned to a variety of texts and contents.

STRATEGIES FOR EXPLICIT INSTRUCTION

READING TERMS TO KNOW

1. **Authentic assessment** uses actual literacy tasks for the purpose of determining student performance, as opposed to relying solely on traditional forms of testing.

2. **Balanced reading** is a reading program which includes phonemic awareness, decoding, fluency, calling on prior knowledge, vocabulary-building, comprehension, and motivation.

3. **Clustering** is grouping information to help children remember it better; a form of brainstorming.

4. **Critical listening** is listening for a specific purpose (e.g., evaluation, information, entertainment).

5. **Critical reading** is reading "text in such a way as to question assumptions, explore perspectives, and critique underlying social and political values or stances." (IRA and NCTE, 1996, p.71)

6. **Experience stories** are teacher-directed stories written by the teacher and the students to reflect a group experience.

7. **Expository writing** refers to a precise, factual, informational writing style.

8. **Implied meaning** is meaning which cannot be cited from the text but which may be drawn from the reading; reading "between the lines."

9. **Letter-sound correspondence** means recognizing the corresponding sound of a specific letter when that letter is seen or heard.

10. **Metacognition** is the awareness and knowledge of one's mental processes such that one can monitor, regulate, and direct them to a desired end; self-mediation; thoughts about thinking (cognition); for example, thinking about how to understand a reading selection.

11. **Non-print text** means visual media other than printed material (e.g., photographs, movies, symbols).

12. **Paired reading** means partners reading aloud to each other for the purpose of practicing, sharing, developing fluency, communicating information, or modeling oral reading technique.

13. **Paired writing** refers to two students collaborating to create one piece.

14. **Phoneme** is the smallest unit of sound; for example, the word "cat" has three phonemes.

15. **Phoneme awareness** is an understanding that speech consists of a series of small sound parts.

16. **Phonics** is the association of speech sounds with printed symbols.

17. **Print text** is a written, typed, or printed version of a piece of prose or poetry.

18. **Reading** is a complex developmental challenge that we know to be intertwined with many other developmental accomplishments: attention, memory, language, and motivation, for example. Reading is not only a cognitive psycholinguistic activity but also a social activity.

Being a good reader in English means that a child has gained a functional knowledge of the principles of the English alphabetic writing system. Young children gain functional knowledge of the parts, products, and uses of the writing system from their ability to attend to and analyze the external sound structure of spoken words. Understanding the basic alphabetic principle requires an awareness that spoken language can be analyzed into strings of separable words, and words, in turn, into sequences of syllables and phonemes within syllables.

Beyond knowledge about how the English writing system works, though, there is a point in a child's growth when we expect "real reading" to start. Children are expected, without help, to read some unfamiliar texts, relying on the print and drawing meaning from it. (Preventing Reading Difficulties in Young Children, p.15)

19. **Reading process** is a process in which we construct meaning from print. Any of the sub-processes, such as word identification or comprehension, that are involved in the act of reading.

20. **Reflection** (1)The process or result of seriously thinking over one's experiences, especially those valued. (2)An approach to problem solving that emphasizes the careful consideration of the nature of the problem, the thorough planning of procedures to solve the problem, and the monitoring of the processes used in reaching a solution. (3)In *Rosenblatt's (1978)* transactional theory of reading, a late or final phase of the reading process in which the significance of the reader's evocation of the text is reviewed and evaluated. (4)A sign. (5)Introspection.

21. **Scaffolding** is the support and guidance provided by an adult that helps a student function on a higher level; students develop new cognitive abilities when a teacher leads them through task-oriented interactions.

    The student is seen as constructing an edifice that represents her cognitive abilities. The construction starts from the ground up, on the foundation of what is already known and can be done. The new is built on top of the known.

    The teacher has to provide this scaffold to support the construction, which is proceeding from the ground into the atmosphere of the previously known. The scaffold is the environment the teacher creates, the instructional support, and the processes and language that are lent to the student in the context of approaching a task and developing the abilities to meet it.

    Scaffolding must begin from what is near to the student's experience and build from what is further from his experience. *Michael Smith* calls this moving from "near to home" to "far from home"; you have to start from home when you journey somewhere new. Likewise, at the beginning of a new task, the scaffolding should be concrete, external, and visible. This is why math skills are learned from manipulatives, and fractions from pies and graphs. Eventually, these concrete and external models can be internalized and used for abstract thought. One of the problems of reading is that the processes are internal, hidden, and abstract. Such strategies as a DRTA make the hidden processes external, visible, and available to students so that they can be scaffolded to use and master new reading strategies.

    According to *Berk and Winsler (1995)*, scaffolding is an interaction style that fosters cognitive growth and success in performing specific tasks. It is characterized by joint problem solving of an interesting, meaningful, collaboratively approached problem. Another quality of scaffolding is "intersubjectivity", which they defined as the process whereby two participants who begin a task with different understandings arrive at a shared understanding. In other words, a student adjusts her perspective, strategy use, and understanding to gain a more mature approach to the problem,

one that is exhibited by the teacher. They stress that scaffolding also includes concern, warmth, and responsiveness. Praise and feedback are important elements, as are talking through phases of the task. Scaffolding also keeps the student in *Vygotsky's* Zone of Proximal Development or ZPD, and promotes "self-regulation." The student, therefore, takes as much responsibility as possible, and eventually takes on the language and strategies to regulate independent behavior in such a way to complete the task on her own.

The ultimate goal, of course, is to bring the previously unmastered processes of completing a task into the students' Zone of Actual Development or ZAD so that they can do the task without help. Reaching this point requires lots of practice and is a significant learning accomplishment.

22. **Schema** is a unit of organized knowledge. It includes how a person thinks and acts when planning and executing and evaluating performance on a task and its outcomes.

23. **Shared reading** is all reading that is not individual**;** this can include paired reading, read-alouds, literacy circles, small groups, and choral reading.

24. **Visual message** refers to non-print texts (e.g., cartoons, posters, pictures).

25. **Word families** are groups of words having similar roots or stems: --ight, --oon.

26. **Word play** consists of addressing words through games, rhymes, tongue twisters; any method that increases students' awareness of the meaning and value of individual words.

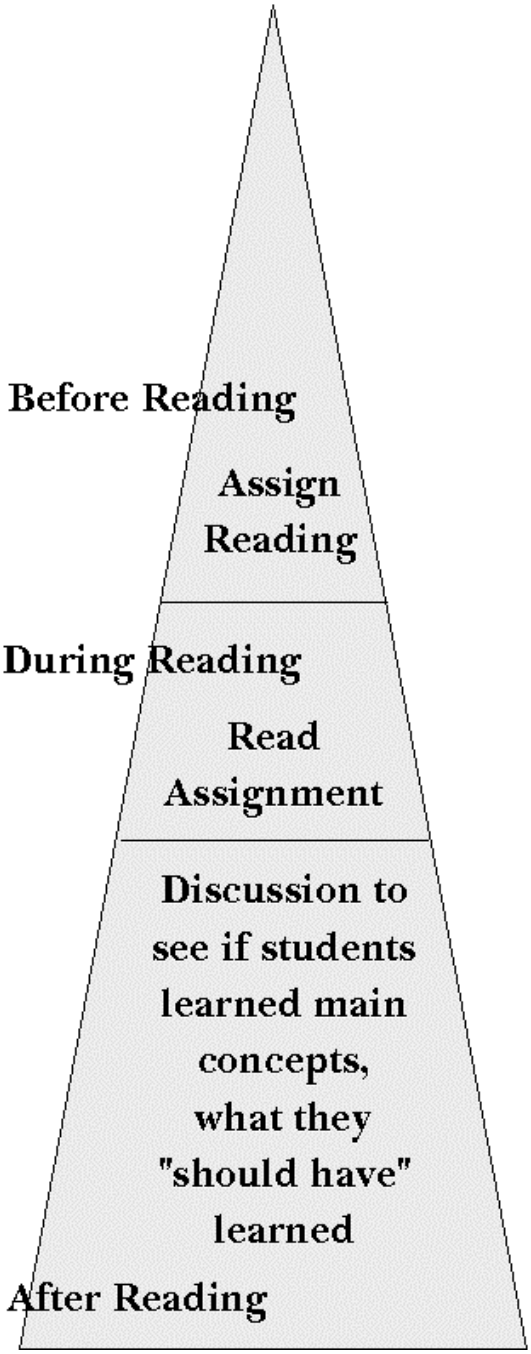
27. **Word walls** consist of words posted on classroom walls as a means of immersing students in language. Students add new words as they come in contact with them. Word walls can be used to teach vocabulary, pronunciation, word families, categorization, and spelling.

FRAMEWORK FOR READING

Decoding					Comprehension				
Word Recognition Strategies			**Fluency**		**Academic Language**			**Comprehension Strategies**	
concepts about print	phonemic awareness	phonics	sight words	automaticity	background knowledge	vocabulary	syntax …….. text structure	comprehension monitoring	(re) organizing text

B-D-A Lesson Format

Traditional Format



Active Engagement Format

Activate & build prior knowledge Make predictions Raise questions Set purpose
Guide ACTIVE silent reading
Clarify, reinforce, and extend knowledge

Reading Strategies

Instructional Teacher Strategies

Strategies for Explicit Instruction

- K-W-L Plus
- Chunking
- DR-TA
- SQ3R
- QAR
- Graphic/Visual Organizers
- Writing to Learn
- Vocabulary Development

Supporting Strategies for Teacher Use

- Anticipation Guide
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- Guided Reading Procedure
- Interactive Reading Guides
- Jigsaw
- Visual - to - Print

Reading Strategies

Learner Strategies

- Use Prior Knowledge Before, During and After Reading
- Predict/Adjust/Confirm
- Skim/Preview
- Raise Questions
- Visualize
- Self-Monitor Meaning
- Distinguish Important Ideas from Less Important Ideas
- Recognize and Use Text Organization
- Summarize
- Interpret
- Synthesize
- Reflect/Evaluate/Apply

K-W-L PLUS

Description: KWL PLUS is designed to foster active reading of expository text. The basic three-steps consist of: **K** – What do I already ***know***?, **W** – What do I ***want*** to know?, and **L** – What did I ***learn***? The "plus" is the extension or connection of the learning. KWL provides a structure for activating and building prior knowledge, for eliciting student input when establishing purposes for reading, and for personalizing the summarization of what was learned. It is a method that students can use independently and master in various settings. The process mirrors what good readers should always do. A complete KWL chart can help students reflect and evaluate their learning experience as well as serve as a useful assessment tool for teachers. The key to this strategy is using the KWL organizer.

Step-by-Step

1. Identify ideas and concepts that students must get from a reading assignment and structure the lesson to ensure that students are led to an understanding of these points.

2. Introduce the KWL and model how to use it with a new topic or reading assignment.

3. Individually, in pairs, or in small groups, students brainstorm what they already know about the KWL Plus topic. Emphasize the tentative nature of what we remember by encouraging reluctant students to try to remember what they think they know.

4. The information is recorded and displayed for the whole class. During class discussion, model how to organize and categorize information.

5. Lead the class into the next phase where students generate a list of what else they **WANT** to learn or questions they want answered. Continue to demonstrate how to organize and categorize their responses and how to use this information to set purposes for their reading.

6. Students read with the purpose of discovering the information to answer their questions or to verify their knowledge. They record what they learned in the **L** column.

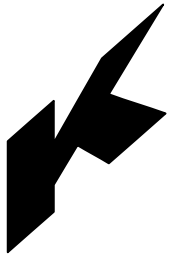
7. Record and display information gained after reading, modeling how to reflect upon the entire learning experience.

8. Encourage students to decide what other information they would like to know about the topic and discuss why they are interested in this information.

Extensions

The Plus

- Change the **W** to or just add **N** as a category to let students think about what they ***need*** to ***Know***. Or simply use the need category to let students know what will be tested.
- Add an **H** – **KWHL.** ***How*** am I going to Learn (research or investigate)?
- Add another **L** or **S** – **KWLL** or **KWLS.** What do I ***Still*** want to ***Learn***?
- Add a **U** – **KWLU.** How can I ***Use*** (apply) this information?

			
Topic:			
What you **KNOW** about the topic?	What you **WANT** to know about the topic?	What did you **LEARN** about the topic?	What did you **STILL** want to learn about the topic?

k	N	W	S
What facts do I **KNOW** from the information in the problem?	Which information, if any, do I **NOT** need?	**WHAT** does the problem ask me to find?	What **STRATEGY**/ operation/tools will I use to solve the problem?

CHUNKING THE TEXT

Description: Chunking the Text provides students with the ability to break the text into shorter, more manageable units. This strategy enables students to read with more independence while reinforcing text organization skills and increasing text opportunities since students are reading shorter pieces and reflecting upon the content. Chunking the text begins with teacher modeling and instruction in determining appropriate "chunking" indicators (i.e., examples, transition words, and paragraphing) and leads to students' independently chunking the text.

Step-by-Step

1. Depending on the text, such as genre, length, structure, and type, determine how a text should be chunked.
   - Paragraphs
   - Stanza
   - Scene
   - Section
   - Chapter
   - Page
   - Line
   - Sentence Segments
   - Problems (in math & science)

2. Model the chunking of text by first selecting simple, accessible texts in different genres.

3. Instruct students using the following sequence:
   - Examples and justification for when, why, and how to use this strategy.
   - Model using a text similar to the class reading assignments.
   - Guide them through an initial practice and evaluate the degree of mastery before moving to an independent application of the strategy.
   - Allow students to use the strategy, scaffolding the instruction, until they gain proficiency.

4. Through various discussion opportunities (small groups/whole class) have students evaluate the decisions made while utilizing the strategy. This will encourage them to extend this awareness of text features as they read.

5. Extend the strategy by rewriting or making notes after completing a "chunked" text.

Extensions

- Encourage reflection of both teaching and reading by engaging in discussion.
- Summarize the last section to reinforce instruction of main idea & separating details.
- Formulate questions to answer from reading the previous chunk as students read the next chunk.
- Make predictions about chunked texts.

DIRECTED READING AND THINKING ACTIVITY (DR-TA)

Description: The **DR-TA** fosters critical awareness by moving students through a process that involves prediction, verification, judgement, and ultimately extension of thought. It improves reading and supports readers at all levels. The method works well for readers at all grade levels and ability levels as well as with a range of texts. It also allows readers to self-assess their level of understanding prior to continuing or, should the results prove unsatisfactory, returning to the confusing parts for further clarification. Teachers guide reading and stimulate questions through the judicious use of questions.

Step-by-Step

1. The atmosphere created during a **DR-TA** is paramount in the strategy's success. Be supportive and encouraging so as not to inhibit students' free participation. When posing open-ended questions, allow for think time instead of breaking the silence by splitting the question up. Often waiting a few more seconds allows students to collect their thoughts and to respond to the question.

2. After allowing students to skim the text, make some predictions about its meaning, main ideas/concepts or other information. Review the title – ask for a prediction and explanation; continue through headings, graphs, maps, even pull out quotes to activate schema and provide an orientation to the text. Never refute any predictions that students make; to do so is comparable to pulling the rug out from under them.

3. **For informational text**, analyze the material for its main and subordinate concepts. What are the relevant concepts, ideas, relationships, and information in the assignment? This content analysis will help determine logical stopping points while directing students through the text. **For narrative text,** determine the key elements of the story: the setting and the events in the plot. Once these elements are identified, decide on logical stopping points within the story. In fiction, logical stopping points come at key junctures in a causal chain of events in the story line because the reader should have enough information from at least one preceding event to predict a future happening or event. The division of text in this manner is known as **"chunking the text."**

4. Have students take notes or use post-it notes to mark information, examples, or evidence in the text that verifies or refutes their predictions.

5. Use questions such as the following:
   - What do you think a story/reading with this title might be about?
   - What do you expect will happen?
   - Why do you expect this to happen?
   - Could it happen in any other way?
   - Which predictions do you agree/disagree with and why?

6. Discuss with students their predictions, answers, speculations, assumptions and have them reference the text for support and proof. This also serves as a way to promote the value of re-reading.

7. Have students read the chunked text, stop as directed, and interact with them, in order to model the behavior of good reading.

Extensions

- Vary reading practices by including silent reading paired reading, choral reading and listening to a recording.
- Try this strategy with non-print text like film, art, posters, and/or web pages.
- Poll the class to determine the accuracy of their predictions.

READ ALOUD

Description: Reading aloud, whether it is done by the students or the teacher, is one of the most helpful techniques for improving reading skills and engaging readers of all ages. Hearing the text while looking at it on the page helps many readers process the information more effectively and understand how it should be read. As students listen to the teacher's emphases and pauses, they see how those relate to the punctuation and structure of the sentence. Reading aloud also develops students' language sense as they hear the way words are used, pronounced, and interpreted.

Note: Always allow students the opportunity to preview and read silently prior to reading aloud because their focus is on decoding not on comprehension. Never force students to read aloud, invite them.

Reading aloud should not replace silent independent reading. Be warned. Students with reading difficulties quickly learn that they can bypass the assigned text readings since the teacher will summarize main points or read it aloud to them.

Step-by-Step

1. Read aloud when
   - hearing the text will help students enjoy it or process it in a more effective way.
   - introducing new or difficult texts.
   - reading poetry or plays.
   - sharing with text of special interest with.
   - focusing students' attention.
   - beginning or ending a class or segment (as an opener or a wrap-up).

2. Choose diverse materials to read aloud, such as
   - directions.
   - class books.
   - literature.
   - observations (e.g., from a scientific report used to begin a class or group discussion).
   - children's books.
   - random items you discover in your own reading that you think are fun, powerful, or useful to share.

3. Read aloud in various configurations, such as
   - students to a small group.
   - students to the whole class.
   - teacher to the students.

4. Provide a safe, supportive environment to ensure successful read alouds.

5. Text talk. Read aloud from a book or several books that might appeal to students. Choose interesting segments that can be read with expression. Stop at the crucial moment when they are hooked.

6. Keep in mind guidelines for reading fiction aloud to students from *Janet Allen's (1995)* It's Never To Late.

- Determine if this is the right book to meet the needs of these students at this time.
- Ask if this book can be read in such a way that students will not be bored.
- Choose books that you enjoy, as this will help you read them better.
- Choose a book that matches instructional goals.

7. Use reading aloud across the subject areas (e.g., reading story problems aloud in math class helps to emphasize their narrative structure).

8. Before, during, and after read alouds have students
   - make predictions.
   - follow along on the page while the text is being read aloud.
   - take notes.
   - relate reading to specific content.
   - summarize. (written or oral)

Extensions

- Have student record their own reading and thinking aloud - this allows both the student and the teacher to assess fluency.
- With a timer, set for 1 minute, have students record their reading.
- When the timer indicates, stop reading and mark the precise spot in the text.
- Count the number of words. High school students should read 120 words in a minute. This builds fluency, accuracy, and speed.
- Use audiotapes of books or poems to add variety to read alouds. Also consider using videotaped performances of poems and plays.

THINK ALOUD

Description: Thinking aloud allows others to see *what* you think by narrating *how* you think as you read text or discuss an idea. Often students are directed to read a chapter and take notes on important ideas. Knowing how to think about what is read and knowing what such thinking looks like is innate to good readers. Students often do not know what good thinking is, so teachers must constantly model it for them and ask them to model it in order to shape their performance through feedback.

Another important outcome of modeling a think aloud is the realization that reading is complex. When the teacher models, false starts, guesses, confusions, revisions, and questions he or she demonstrates the thinking/reading process.

Step-by-Step

1. Use think-alouds to
   - demonstrate what students should do and how they should do it
   - reflect on what they read
   - help them comprehend their reading
   - develop their internal reader

2. Use think-alouds in a variety of configurations, such as
   - teacher to students
   - student to teacher (in conferences or class discussion)
   - students to students
   - author to readers (via interviews with the authors or the teacher's summary of an author's remarks taken from an article)

3. Express your thinking aloud
   - on paper
   - in your head
   - a small/large group
   - on a tape

4. Keep in mind that think-aloud strategies are not a sequence but a set of habits of mind common to all effective readers which, if used well, can help readers make sense of a wide variety of texts in different media and of varying complexity. When we use the think-aloud technique, we
   - predict
   - describe
   - compare
   - make connections
   - monitor and correct
   - question
   - clarify
   - apply previous or new knowledge
   - identify what is important
   - troubleshoot and problem solve
   - speculate

5. Think-alouds provide the teacher an informal assessment of students' thinking and comprehension that can be used to structure the culminating assignment.

6. Use this strategy when assigning a reading to a class to model for them how they should approach the reading. This clarifies their purpose and directs their attention allowing them to read more effectively.

7. The think-aloud helps readers better understand what they are reading by forcing them to think about what they read *as they read it.* A think-aloud might be personal or philosophical, addressed to the author or oneself. During a think-aloud, encourage students to interact with the text by doing any or all of the following:
   - speculating
   - guessing
   - wondering
   - observing
   - arguing
   - philosophizing
   - conjecturing
   - estimating
   - hypothesizing

SURVEY QUESTION
READ-RECITE-REVIEW
(SQ3R)

Description: Survey Question Read-Recite-Review or **SQ3R** is primarily used with selections from textbook or articles with headings. It provides a systematic way to approach informational texts prior to reading. It is designed to improve comprehension of new or difficult texts. Recognized as a study strategy, **SQ3R** can be used with a number of subjects and is not limited to reading since these skills – questioning, reflecting, reviewing – assist students with comprehending both print and non-print text.

Step-by-Step

1. **Survey:** Survey the reading selection, focusing on any major textual features and graphics (e.g., headings, graphs, maps, tables, font size and type) that provide a quick clue to the content. Give special attention to the introduction, especially the opening and concluding paragraphs.

2. **Question:** Formulate questions from chapter and section heading and the surveyed material.

3. **Read:** Read the selection, answering the questions formed in the earlier steps. Questions should be revised as necessary or new ones created as reading occurs.

4. **Recite:** Immediately after completion of the reading assignment students should retell the text in their own words, silently, orally, or in writing. This allows students to process the information and to make deeper connections.

5. **Review:** Survey, summarize, connect, and reflect upon the chapter again. Encourage students to speculate why they could not answer questions (e.g., not well written, not enough information, and difficult vocabulary).

Extensions

- As students become proficient with this strategy, they move to higher levels of thinking. To prompt students towards this goal, consider a jigsaw, group or class discussion, and/or writing an entry in their learning logs to reflect on what they learned and how they learned it.
- To encourage students this strategy can be used to assist in making meaning from other types of text - pictures, graphs, tables, and/or web pages.

RETELLING

Description: Retelling provides an opportunity for readers to process what they have read by organizing and explaining it to others. Retelling develops students' story grammar because they must identify crucial points and the support information. It also reinforces sequencing since it demands remembering information, events, and processes. It encourages interacting with the text from a variety of perspectives: their own, their audience's, and the author's. Retelling supports good reading because students must engage in repeated readings of the text, which supports fluency. Naturally, retelling is its own form of assessment – since the student's recitation confirms his/her reading of it and reveals the extent of his/her comprehension. Research indicates that retelling increases both the quantity and quality of what is comprehended. Teachers can use retelling as a way to build silent reading fluency and to measure comprehension. Having a student retell allows a teacher to assess a student's understanding. Retelling allows teachers to gain insight into what a student views as important and also how the student organizes information. A checklist of what is to be covered is helpful as the student retells the text. This strategy can determine whether the student knows the main idea, can make inferences, identify concepts, make generalizations, and connect to the text.

Step-by-Step

1. When introducing retelling, clearly explain to students the steps of how to retell and why it is important. Model it for them. While modeling, comment on how one determines what to include in retelling, why it is performed a certain way, or why a particular strategy (e.g., graphic organizer) is used in supporting the retelling.

2. Emphasize the sequence and structure of the text as the logical means for retelling.

3. Students read through the text several times to identify and internalize the most important points of the text. Use a graphic organizer or some other appropriate organizer to prepare the retelling using their own words and style. Whether using storytelling techniques or a formal description, students should look for places to provide emphasis and use such devices as transition words. Encourage them, if appropriate, to prepare visual aids.

4. Begin with shorter, easier texts and, as student proficiency increases, move to longer and more complicated texts.

5. Assess retellings based on audience understanding and appreciation. Allow time for follow-up discussion of content and delivery.

Extensions

- Have students do their first retelling in writing, possibly in a less formal setting such as their journal.
- As students learn to identify the important elements and sequence them in effective ways, students can do retellings in pairs, progressing to small groups, then to the whole class.
- Consider developing a rubric for the assignment to be used by the reteller and the audience. It can guide the discussion and improve the reteller's performance.

MATHEMATICS RETELLING RUBRIC

Does the retelling?

		0	1	2	3	4	5
		Attempt	**Needs Improvement**	**Average**	**Good**	**Excellent**	**Exemplary**
1.	Tell when to use this procedure?						
2.	Define the concept or procedure?						
3.	Identify the main steps in this concept?						
4.	Make sense to the learner?						
5.	Sound organized?						
6.	Keep the sequence of the procedure?						
7.	Tell how this could be applied to real word situations?						
8.	Answer the question presented by the problem?						

Total Points_____

Student Name: _____
Retelling of: _____
Date: _____

Comments: _____
_____

LITERARY RETELLING RUBRIC

Does the retelling?

		0	1	2	3	4	5
		Attempt	**Needs Improvement**	**Average**	**Good**	**Excellent**	**Exemplary**
1.	Have a good beginning telling when and where the story takes place?						
2.	Name the characters?						
3.	Tell the main points of the story?						
4.	Tell some supporting details?						
5.	Make sense to the reader?						
6.	Sound organized?						
7.	Keep the sequence of the story?						
8.	Tell what the main problem was in the story?						
9.	Tell how the problem was solved in the story?						

Total Points_____

Student Name: _____
Retelling of: _____
Date: _____

Comments: _____
_____

HISTORICAL RETELLING RUBRIC

Does the retelling?

		0	1	2	3	4	5
		Attempt	**Needs Improvement**	**Average**	**Good**	**Excellent**	**Exemplary**
1.	Have a good beginning telling when and where the situation takes place?						
2.	Name the person(s) involved?						
3.	Tell the main points of the situation?						
4.	Tell some supporting details?						
5.	Make sense to the reader?						
6.	Sound organized?						
7.	Keep the sequence of the situation?						
8.	Tell what the main problem was in the situation?						
9.	Was the situation solved and how did it come about?						

Total Points_____

Student Name: _____
Retelling of: _____
Date: _____

Comments: _____
_____

SCIENCE RETELLING RUBRIC

Does the retelling?

		0	1	2	3	4	5
		Attempt	Needs Improvement	Average	Good	Excellent	Exemplary
1.	State the problem presented?						
2.	Tell what outcome is expected?						
3.	Identify the main points of the concept/procedure?						
4.	Tell some variables of the concept/procedure?						
5.	Follow the process/steps?						
6.	Sound organized?						
7.	Keep the sequence of the procedure?						
8.	Tell how this could be applied to real world situations?						
9.	Tell whether the outcome of the procedure was expected or not and why?						

Total Points_____

Student Name: _____
Retelling of: _____
Date: _____

Comments: _____
_____

QUESTION/ANSWER RELATIONSHIP (QAR)

Description: The **Question/Answer Relationship** or **QAR** helps students understand different levels of questioning and the relationships between questions and answers. Often students respond to questions with either a literal answer or by stating that "it" is not in the text. **QAR** provides four levels of questions – **Right There, Think and Search, You and the Author,** and **On Your Own** – to indicate how the question is related to the text. This strategy allows students to understand their thinking processes and develop their metacognitive abilities.

Step-by-Step

1. Introduce the **QAR** using a visual aid and a short selection to demonstrate the relationships.

2. Model identifying and answering questions at each level of **QAR**.

   - **Right There!** (The answer is found in the text. The words in the questions can usually be found in the same sentence with the answer.)
   - **Think and Search!** (The answer is in the text, but the words are probably not in the same sentence. Read the text; look for ideas that can be put together, and think about what the author is saying.)
   - **The Author and You!** (The author provides ideas and makes students think, but connections to students' knowledge are needed to answer the question.)
   - **On Your Own!** (Students must apply their own knowledge and what has been learned to answer the question.)
     - In the beginning teachers may wish to introduce and practice one level at a time before introducing the next level.
     - The strategy can also be used with three classifications of question/answer relationships – **Right There**, **Think and Search**, **Author and You**.
     - Vacca and Vacca (1996) propose identifying two broad categories of information: **In the Text** and **In My Head**. Students then place **Right There** and **Think and Search** under **In the Text** while **On My Own** and **The Author and You** are placed under **In My Head**.

In the Text	In My Head
Right There	On My Own
Think and Search	The Author and You

Extensions

- Use this strategy to demonstrate higher order thinking skills. Familiarize students with Bloom's Taxonomy of Questioning to facilitate their understanding of higher order thinking.

GRAPHIC ORGANIZERS

Description: Graphic organizers are essential tools for both teachers and students. They come in several forms and serve all readers because they

- support all learners, especially those with special needs.
- provide structure and guidance as readers move toward greater independence.
- offer a visual means of explaining and organizing information and ideas.
- ask students to evaluate and actively manipulate information, which helps them to see the connections and relationships between ideas.
- teach students to think categorically.
- provide useful tools to prepare for and facilitate writing, thinking, and discussing.
- prepare students for the world of work, where such tools are used with increasing frequency.
- help students remember and make greater cognitive associations between information and ideas.
- force students to evaluate information in order to determine what is important.
- improve readers' understanding of the text.
- help develop students' knowledge of textual structures and their general textual intelligence.

Step-by-Step

1. Graphic organizers come in many forms. Explore those that might help students meet specific goals. Try them out to see if they accomplish what we want. Make modifications if necessary. Using them ourselves allows us a model to share with students as well as allowing us the chance to think about the text and its appropriateness with respect to particular assignments.

2. Before reading, have students use graphic organizers such as the KWL to prepare for reading. Graphic organizers assist with activating students' prior knowledge by helping them to think about text structure and organization.

3. While some graphic organizers are prescriptive and structured (e.g., KWL), some are more open-ended and adaptable (e.g., two-column notes).

4. Use graphic organizers to help students
   - classify ideas, words, characters, events prior to writing about or discussing a text.
   - organize a sequence in a process.
   - take parallel notes – (e.g., comparing what they read with the experiment or lecture that follows).
   - identify what is important in a text.
   - examine and understand the organizational pattern of the information or story.

5. Use graphic organizers to develop students' skills and strategies. Model how organizers might be used and how to select one to meet specific purposes. Begin the process of allowing students to select their own graphic organizers**,** encouraging them to reflect/justify their selections.

VENN DIAGRAM

Description: A **Venn diagram** is a graphic organizer that uses overlapping circles to compare and contrast. Traits that are shared are entered in the overlapping area and individual traits are entered in the portions that do not overlap. Students can compare two countries, two different mediums such as a movie and the book, two flowering plants or two processes in mathematics. The object is to determine how things are alike and how they are different. The Venn diagram was originally used in math to show relationships among sets.

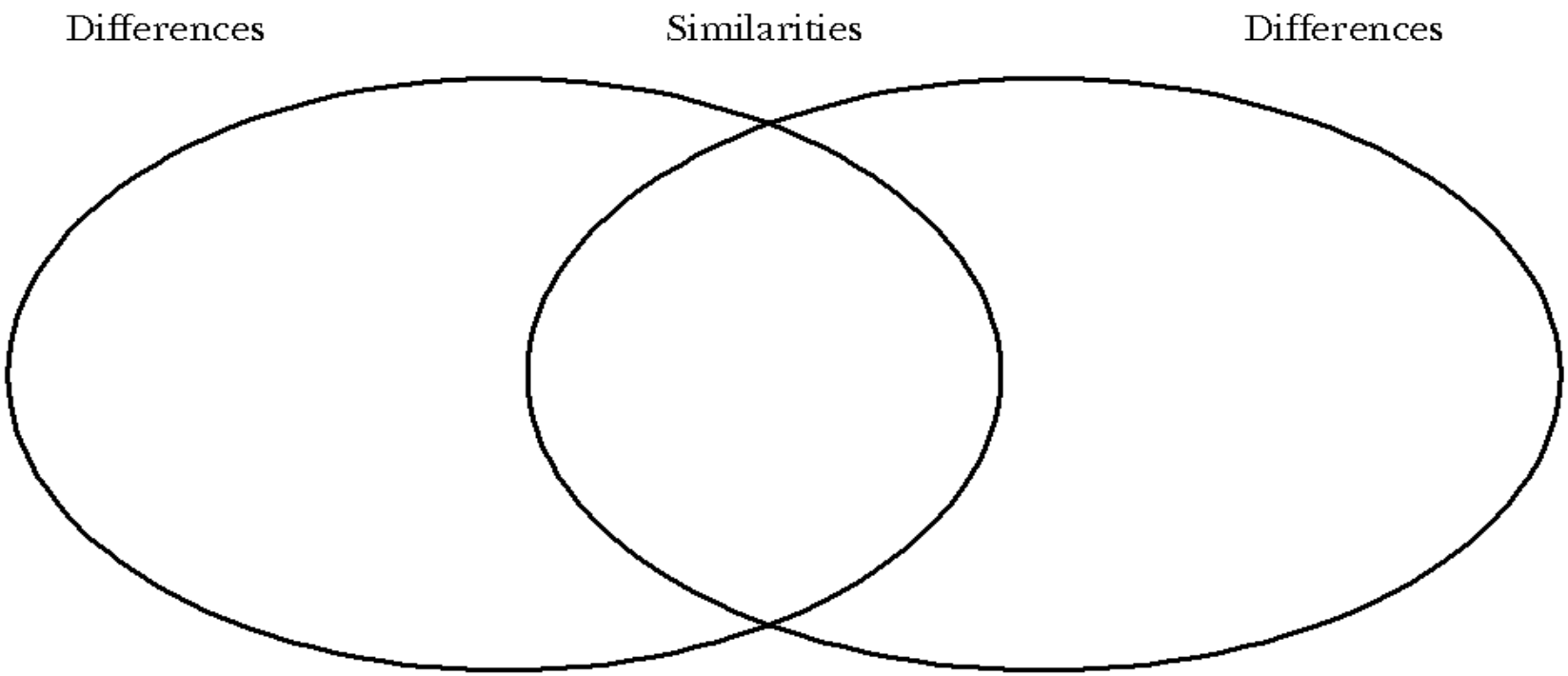
Step-by-Step

1. Draw two interconnecting circles.

2. Discuss the Venn diagram with students, noting the items they will compare and contrast.

3. Place in the overlapping circles traits that are shared while individual traits are entered in the portions that do not overlap.

Compare and Contrast Graphic Organizer



Venn Diagram

T-NOTES

Description: **T-Notes** provide students an organized method of note taking while listening or reading.

Step-by-Step

1. Generally, students divide a sheet of notebook paper in half.

2. While listening or reading, students record words or key points in the left columns.

3. In the right column, students record definitions or explanations of key points.

Extensions

This form of note taking is particularly beneficial when time to review for exams and quizzes. Students may fold their papers to hide the right column. Then either mentally or by using an additional sheet, students may quiz themselves and check their answers.

T-Notes

DISCUSSION WEB

Description: The Discussion Web *(Alverman, 1991; Duthie, 1986)* is an organizer that allows students to look at both sides of an issue before making a decision based on evidence.

Step-by-Step

1. Choose a selection that has potential for opposing viewpoints.

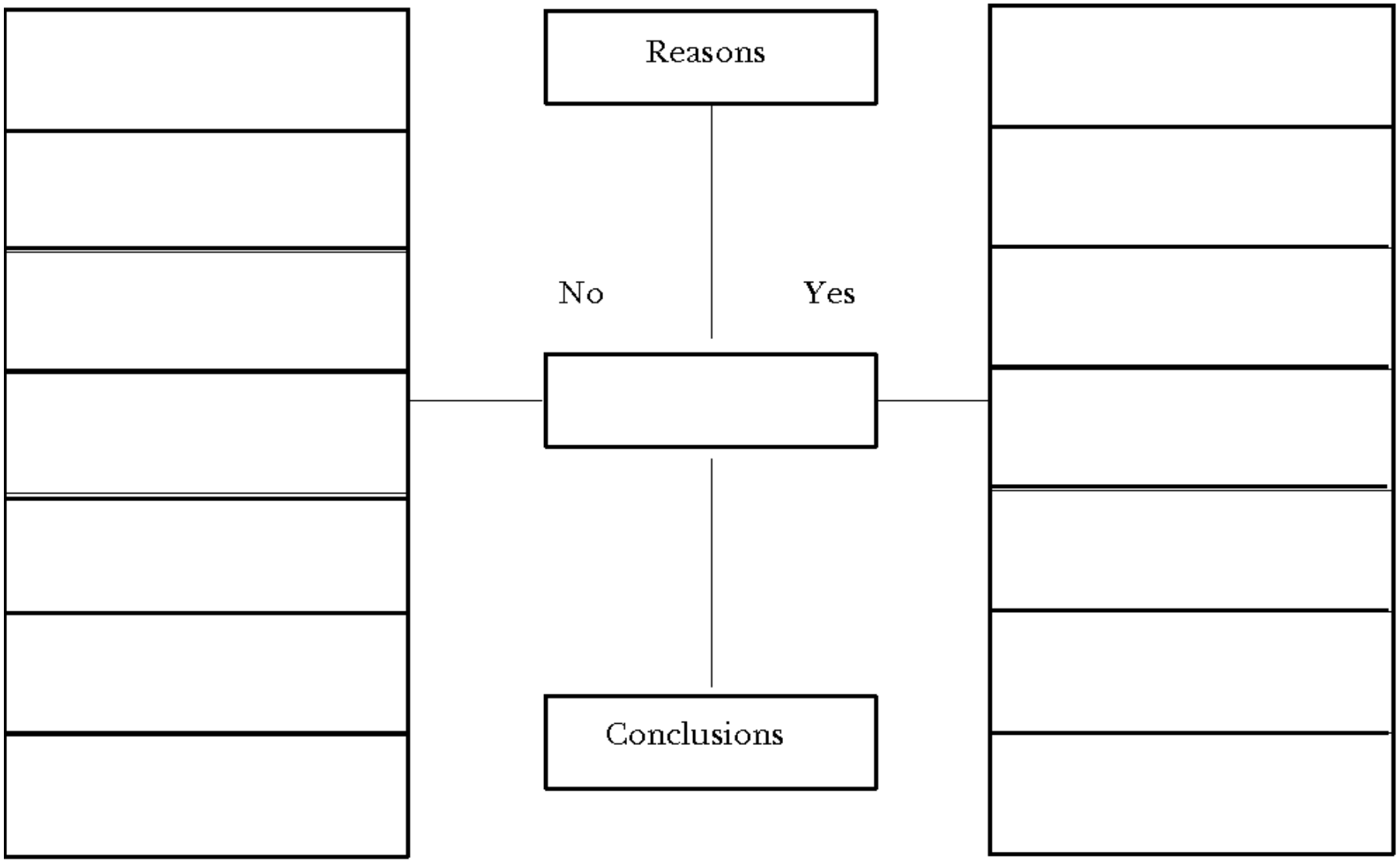
2. A transparency of the Discussion Web to be used for class review is helpful. A question should be posed and written on the web.

3. Students working with a partner can brainstorm at least three responses to the question that has been posed.

4. Pair one set of partners with another set of partners for the purpose of comparing their reasons. Working toward consensus is the goal. This can then be written in the box at the bottom of the page.

5. Each group needs to select a spokesperson to report to the whole class.

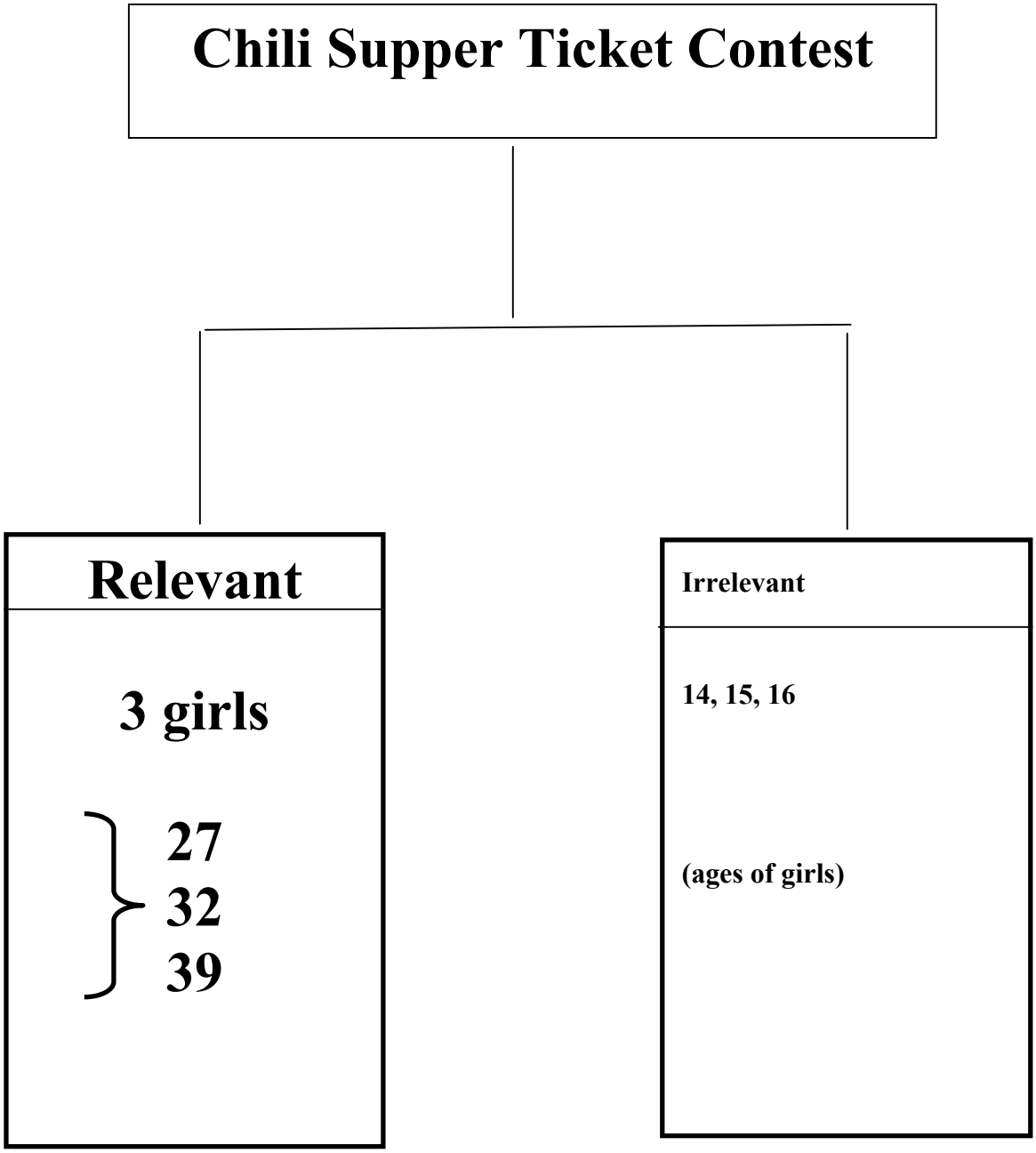
Discussion Web



MATH

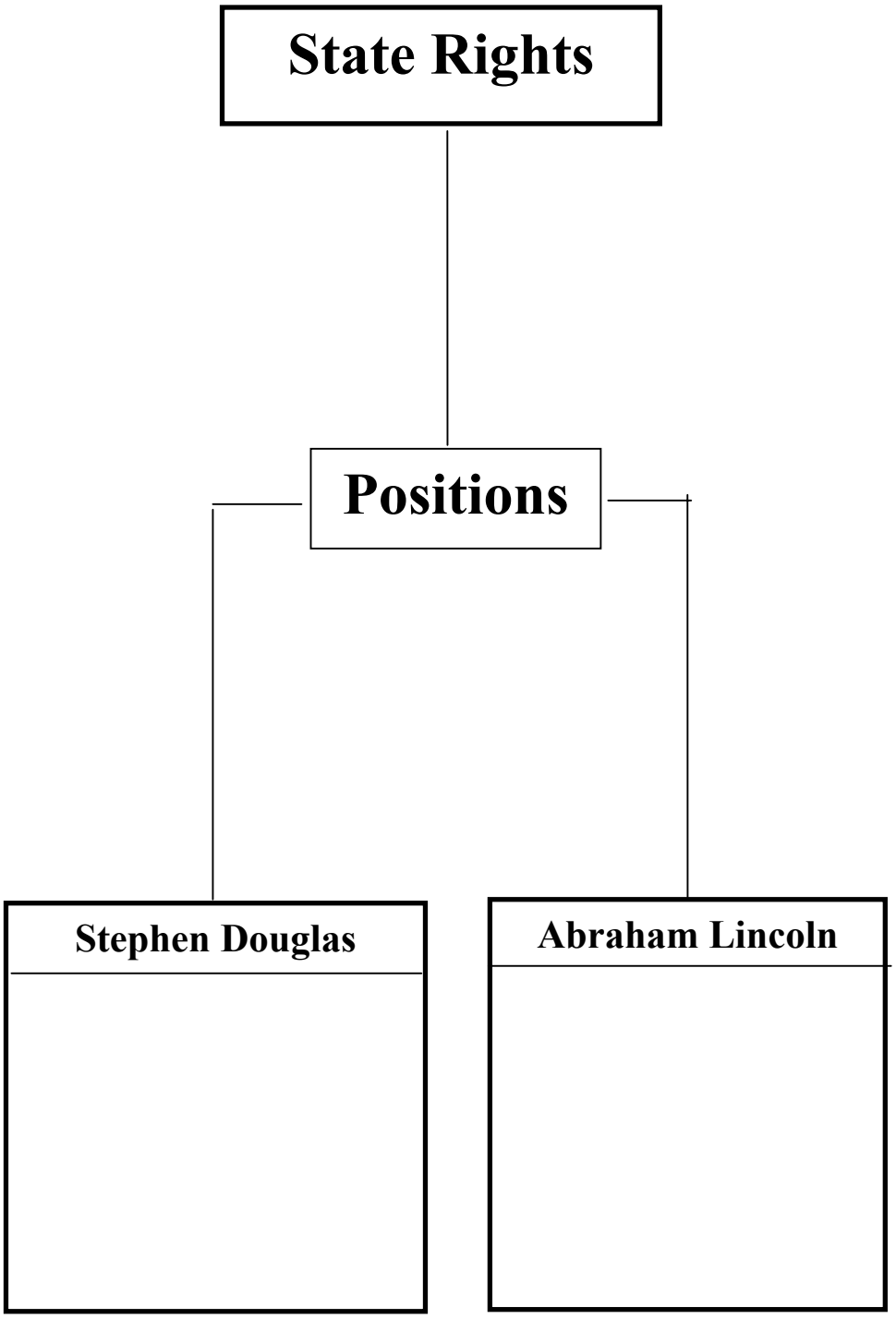
Description: In mathematics students can be asked to determine information as relevant or irrelevant in an effort to focus on necessary information to solve the problem.

Lisa was 14. Diane was 15. Sara was 16. The three girls reported their classes' results for the Chili Supper tickets drive. Lisa's class sold 27 tickets. Diane's class sold 32 tickets and Sarah's class sold 39 tickets. What was the average number of items collected for the Chili Supper contest?



SOCIAL STUDIES

Historical issues can be explored by revising the Discussion Web.



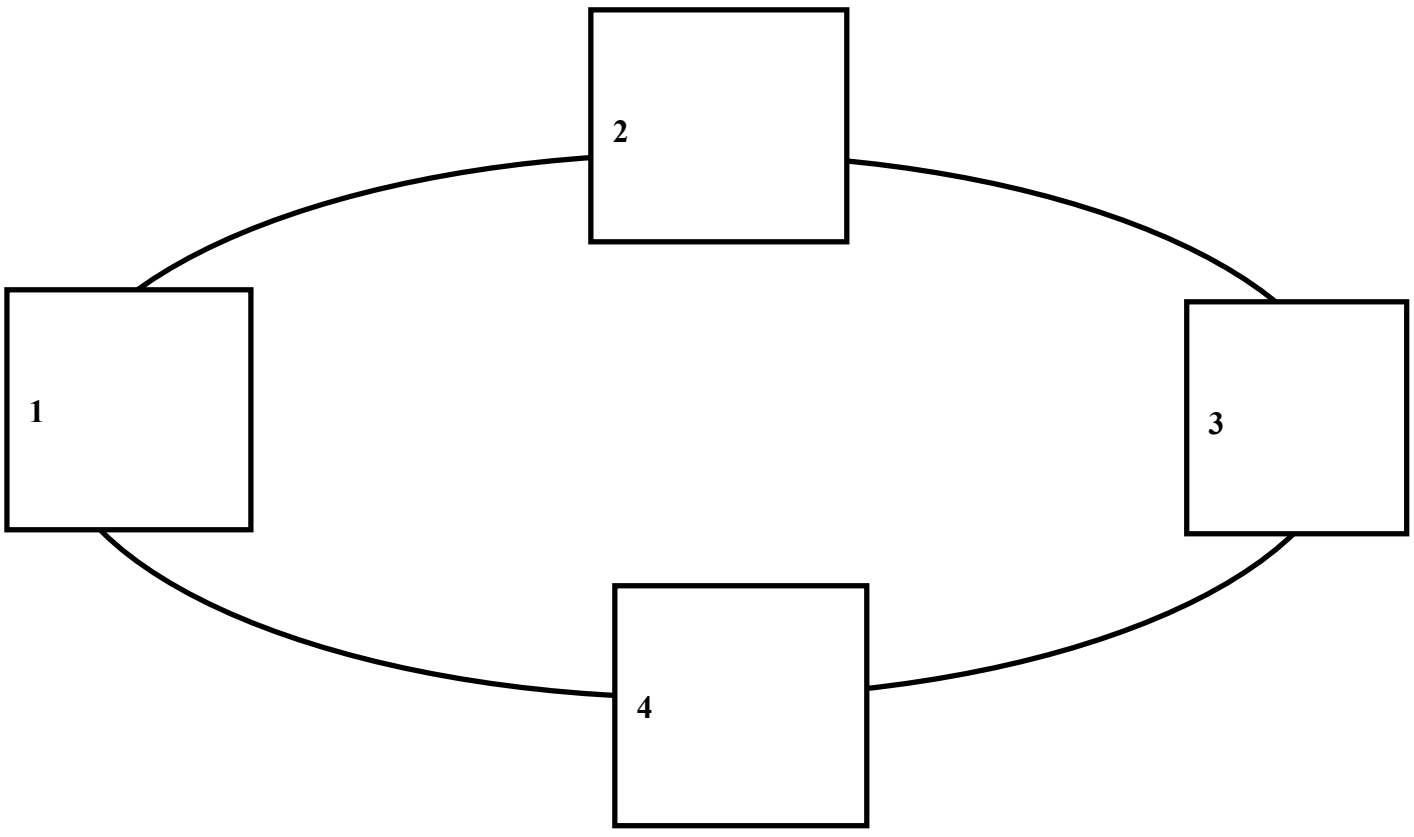
CAUSE AND EFFECT GRAPHIC STRUCTURE

Description: The **Cause and Effect Graphic Structure** is a visual representation of what happened and why.

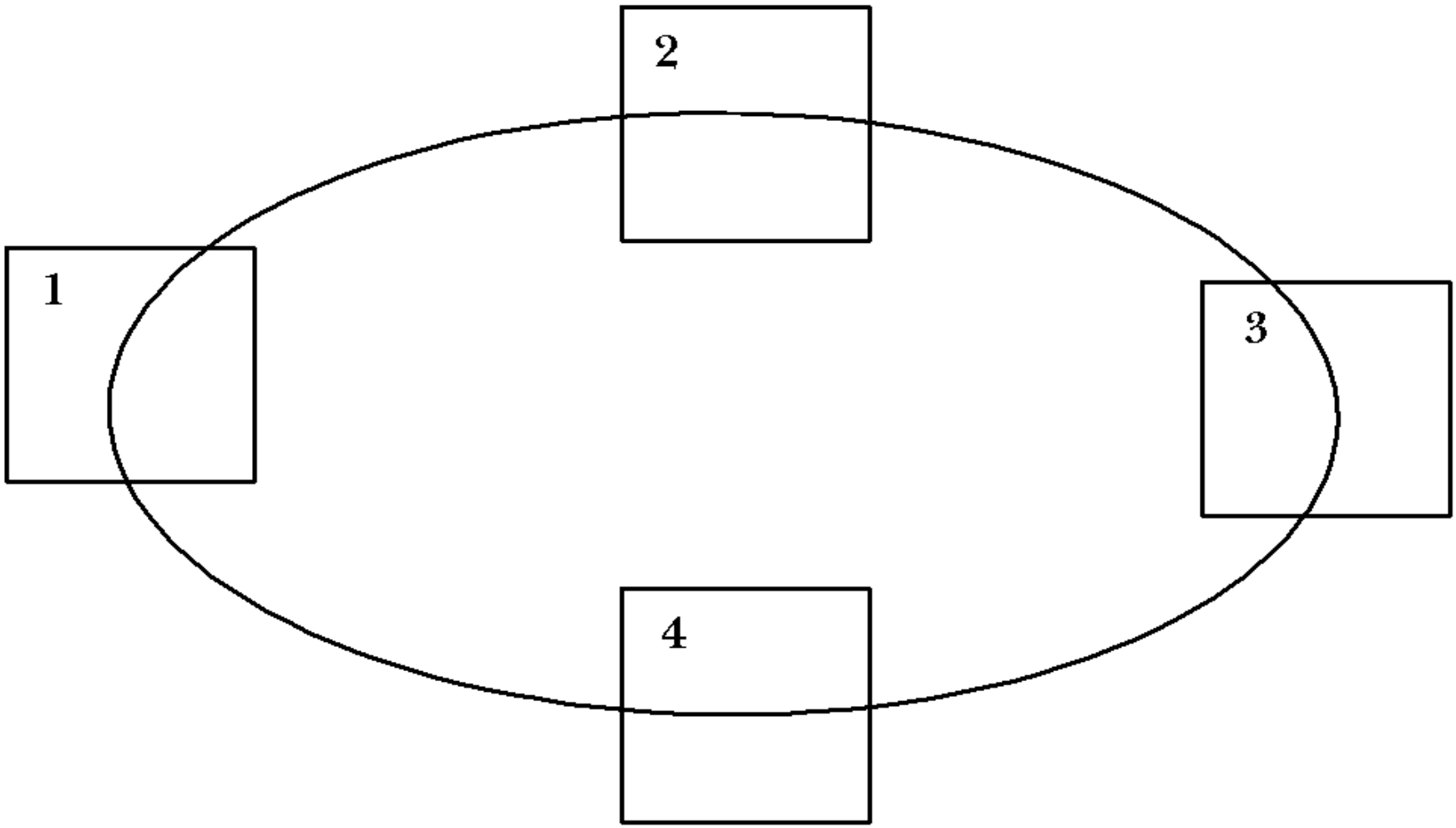
Step by Step

1. Using the graphic organizer students begin with the first box, write what happened and why.
2. In the second box they tell what happened (and why) as a result of the events of the first box.
3. This continues throughout the reading to show the relationships of the various events.

CAUSE AND EFFECT GRAPHIC STRUCTURE



Cause and Effect Graphic Structure



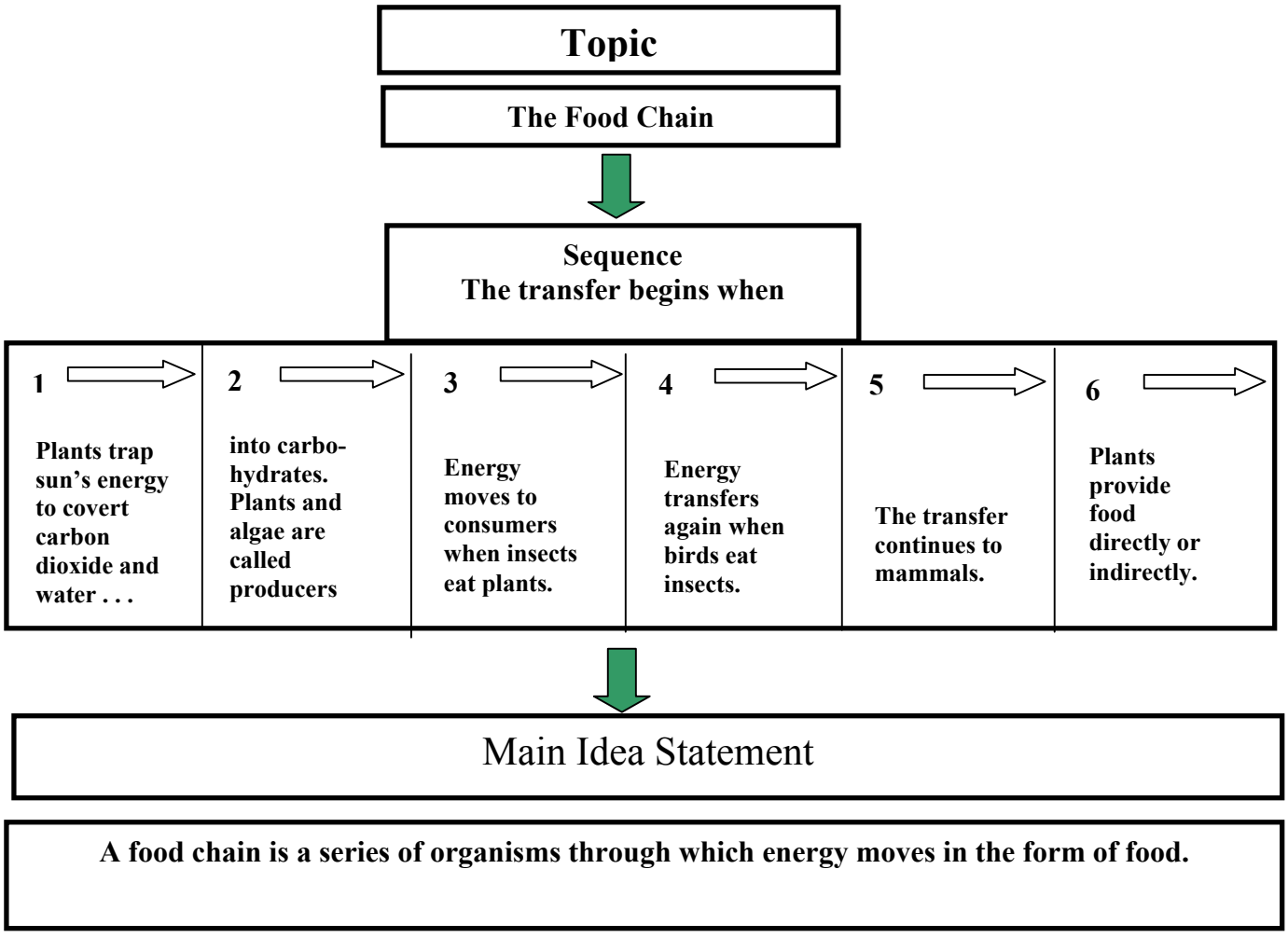
SEQUENTIAL ORDER

Description: A **Sequential Organizer** is one kind of graphic organizer which provides scaffolded instructional sequence. This helps students organize information in text, as well as other printed material assigned in the classroom.

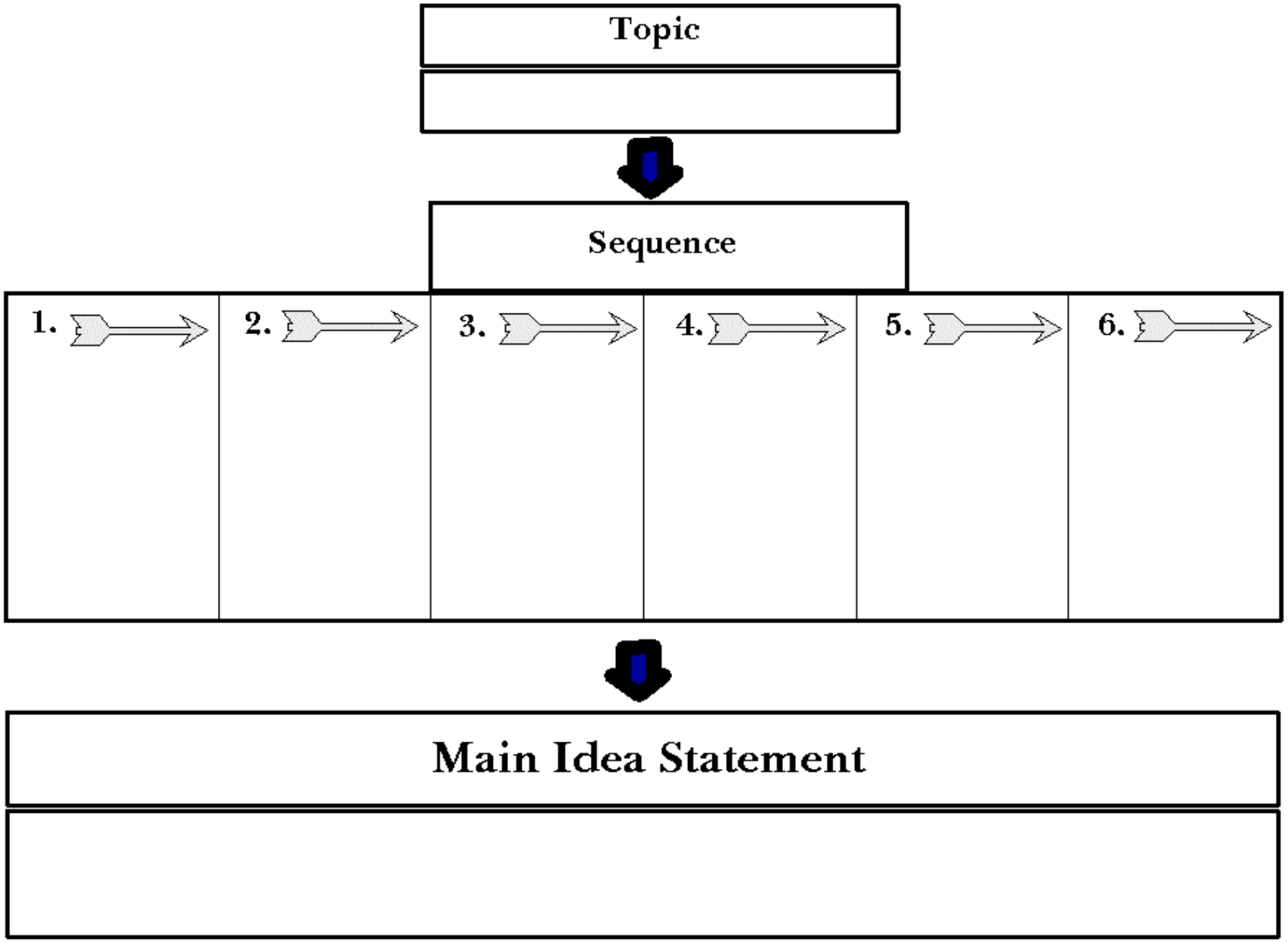
Step-by-Step

1. At the top identify the topic.
2. In each box list the order of events sequentially.
3. Write a main idea statement in the box at the bottom of the organizer.

Sequential Organizer



Sequential Organizer



CONCEPT MAPS

Description: A concept map is a graphic organizer used to represent related concepts and ideas. It gives students a visual "map" of the organization of ideas/concepts. Concept maps help students understand difficult passages of text through organization of the main idea(s) presented in the material.

Step by Step

1. After reading the selection, list the main topic/concept of the selection. Brainstorm as many related words as possible.

2. List the concept words according to hierarchy and according to relationship.

3. Draw lines to link the connections between the different concept words. Label the lines with words or phrases that explain the relationships.

4. Have students list features beside or below each word which help describe the concept.

Concept

What is it?

What is it like?

What are some examples?

Definition Map

FRAYER MODEL

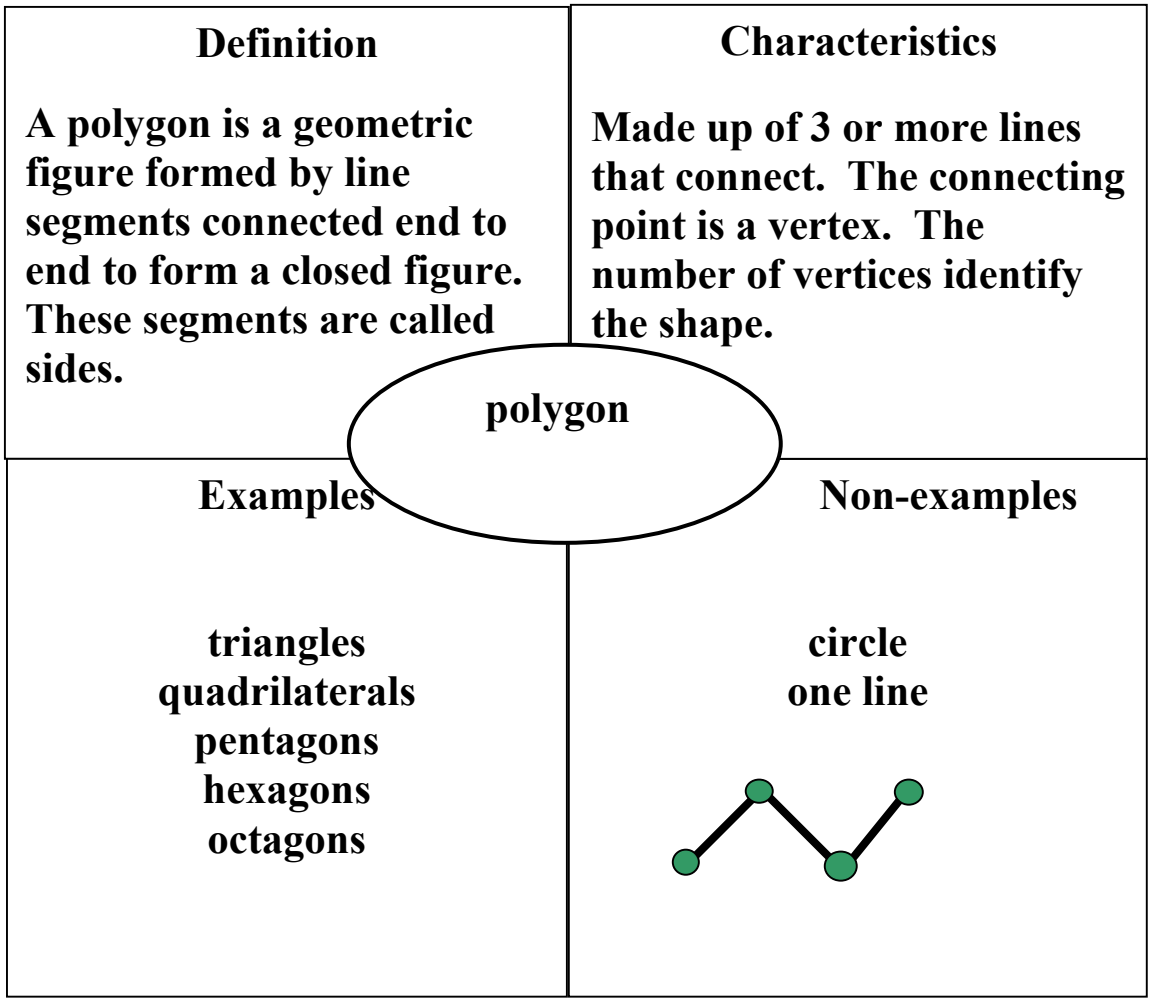
Description: The **Frayer Model** is used as a way to categorize words. Students analyze a word's attribute by choosing examples and non-examples of the concept. Knowing what a concept isn't helps define what it is.

Step-by-Step

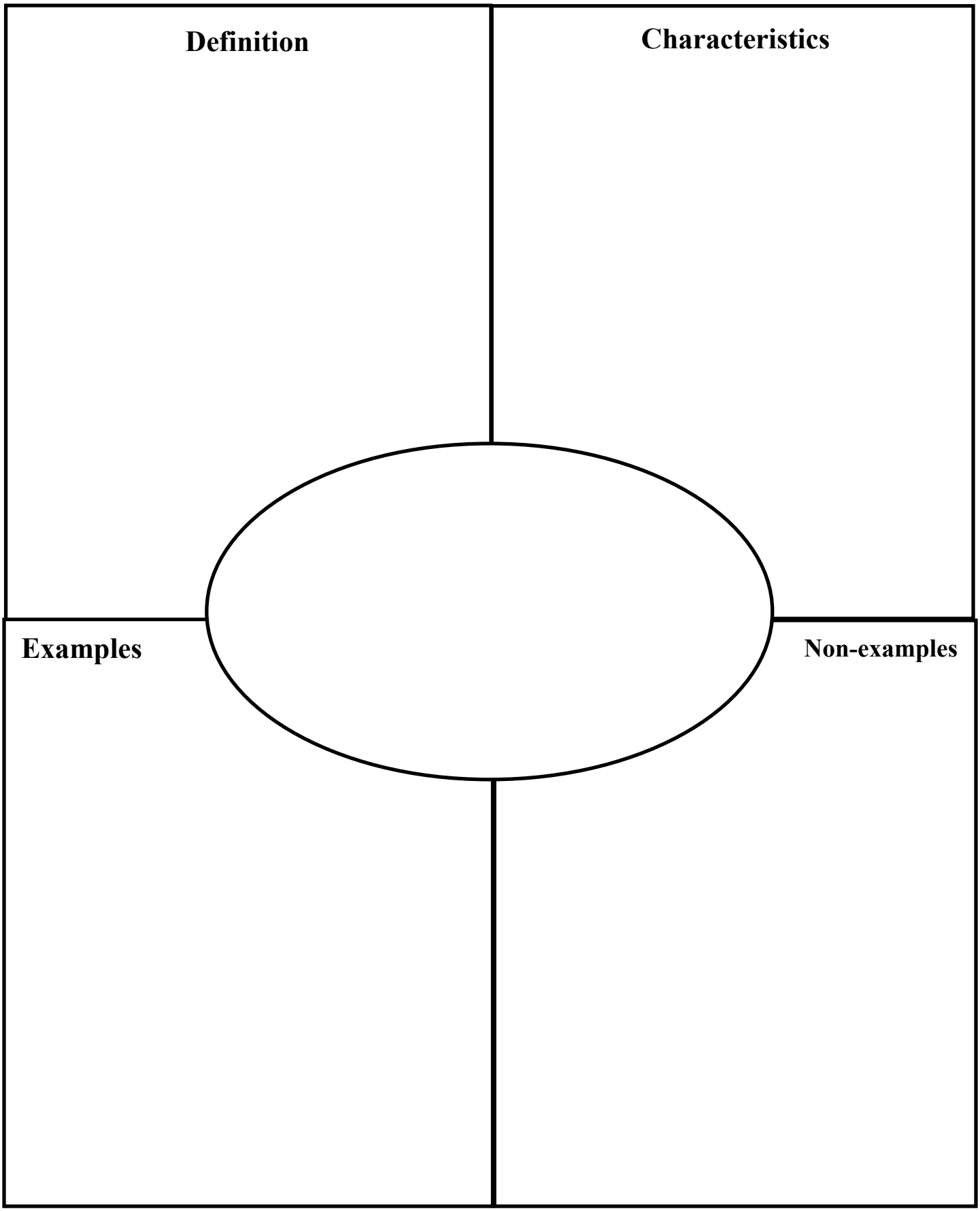
1. Assign the concept or word to be studied.
2. Using a familiar word such as ratio, compete the model with the class.
3. Have students work in pairs to complete the diagram with the assigned word.
4. Upon completion students should share their work with others. This may be done with markers and chart paper and then displayed. Students should feel free to refer to and modify these charts.

Examples of Words:

- **polygon (math)**
- **photosynthesis (science)**
- **dictatorship (social studies)**



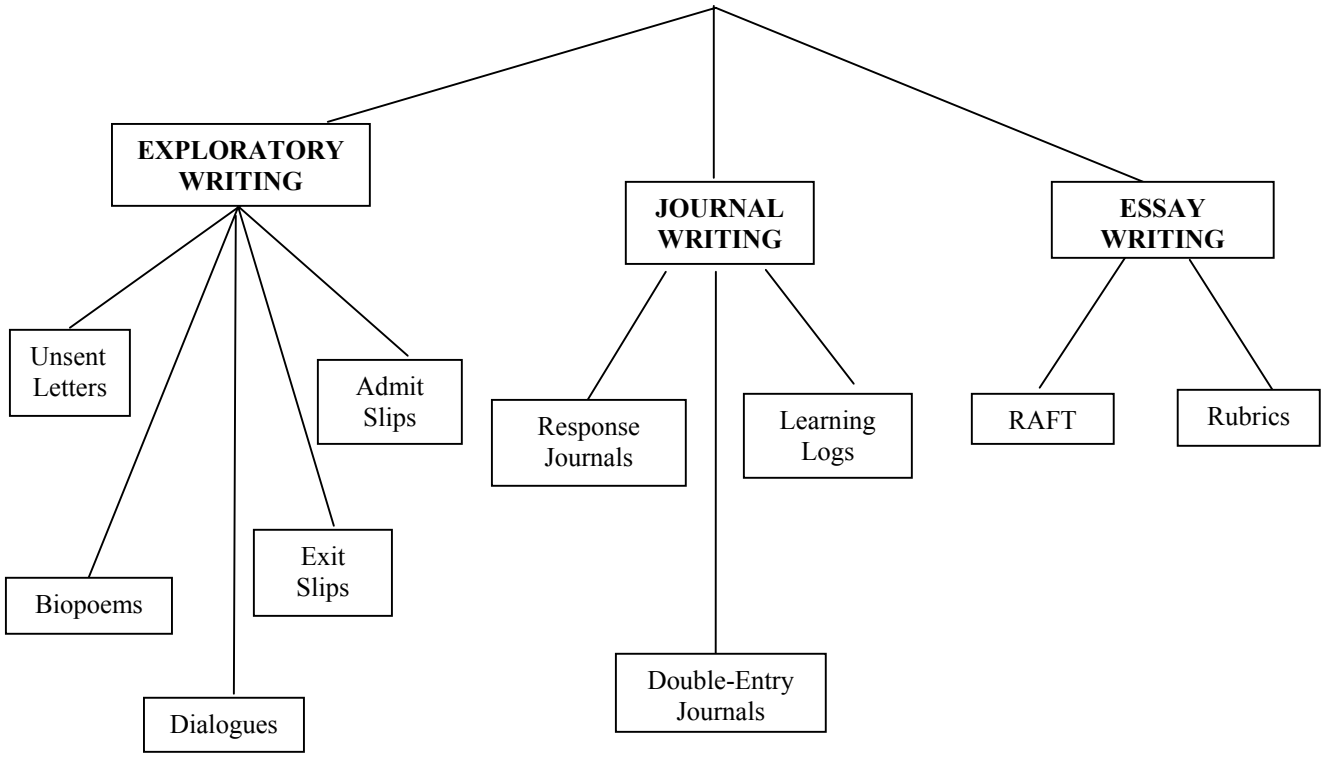
FRAYER MODEL



WRITING TO LEARN

Description: Writing to learn is a method "that can (and should) be incorporated across the curriculum. This approach helps students personalize learning so that they understand their course work better and retain what they have learned longer. It also encourages "high-level think skills" *(Sebranek, Meyer, & Kemper, p. 44)*. Writing-to-learn activities can be used to help students reflect on and explore ideas and concepts that they are reading; thereby helping students to construct meaning. These activities are intended to be brief and can be assigned at any point during the class period.

Reading and Writing Together



ACADEMIC JOURNALING CONNECTED TO CONTENT AREA
Response Journals

Description: Response Journals create a permanent record of what readers are feeling and thinking as they interact with literary or informational texts. It allows students to record their thoughts and emotional reactions about texts. Reading selections may be used as a springboard to inspire students' feelings and thoughts about a topic. Most journal activities require thinking but do not demand a finished product. Students learn to write without fear of making errors. Students should know in advance if they are to share their writing with the class or if their journals are to be read aloud in class. Students often produce their best writing at this time because they are composing for an audience of their peers. Most importantly, journaling allows students to express their thoughts and feelings honestly and without pretense.

Step-by-Step

1. Encourage students to keep their journals close during class in order to stop and take notes, think, or reflect on other writings. It is also useful to prepare for discussions, take notes for a paper, plan a presentation, and synthesize reading or discussion of a text.

2. Teach students the difference between taking notes and making notes. Taking notes is passive; they write down main ideas as they appear. The second is interactive; they not only note main ideas but write down connections, insights, questions, observations.

3. Encourage students to write in their journals to
   - think.
   - elaborate their thoughts.
   - make connections among ideas, writings, readings.
   - synthesize their ideas and understandings at a critical juncture in the reading process.
   - develop questions for clarification to ask of themselves, the text, classmates, teacher, or the author.
   - respond to their own questions or questions from the text, classmates, teacher or author.
   - explain what they have learned.

4. Provide examples of effective journal writing and share journal writings from the class.

5. Journal writing may take place
   - before class.
   - anytime a new idea, an epiphany, or a question reveals itself.
   - during class.
   - while reading and discussing.
   - after class.
   - anytime.

6. Journals may include
   - notes.
   - new ideas.
   - sketches and drawings.
   - concepts, views, and opinions.

- designs and redesigns.
- words – new, favorites and unknown.
- reflections on class, strategies I used.
- questions and answers.
- stories, poems, lists, and any other writings.
- quotes, sayings, and expressions.

ACADEMIC JOURNALING CONNECTED TO CONTENT AREA
Double-Entry Journals

Description: A **Double-Entry Journal** is a versatile adaptation of the response journal. Using a Two Column/T-note format, the double-entry journal allows students to record dual entries that are conceptually related. Students are juxtaposing their thoughts, ideas, and feelings according to the prompts provided for making entries.

Step-by-Step

1. Use double-entry journals the same as the response journals except for heading each of the columns to reflect their purpose. Headings might be:
   - What is it? / What does it mean to me?
   - What I learned from the demonstration? / How the demonstration helped me understand?
   - Words I need to know. / Definitions of words I need to know.
   - Ding: I get it! / Dong: I don't get it.
   - What I thought before reading. / What I think after reading.
   - Ways to solve the problem. / How the problem is solved.
   - What problems I encountered during reading? /How I solved the problem.

ACADEMIC JOURNALING CONNECTED TO CONTENT AREA
Learning Logs

Description: Learning Logs push journaling to a new level. The strategy is simple to implement but must be used on a regular basis to be effective. As with response journals and double-entry journals, students can keep an ongoing record of learning as it happens in a notebook or loose-leaf binder. They write in their own language, not necessarily for others to read but for themselves. This feature makes learning logs more personal than the other journal types. Entries in learning logs influence learning by revealing problems and concerns.

Many teachers use learning logs as a component of the portfolio. Given that reading is a skill we expect to improve with practice, learning logs assist in documenting that growth. While there are various formal and informal methods for assessing reading performance, the portfolio provides both student and teacher with a tangible record of what the student has read over the course of the year. It also allows readers to revisit their goals and, by adding new evidence of their progress, monitoring their progress toward those goals. Finally, portfolios always provide the teacher with a powerful means of evaluating student work since the portfolio invites both student and teacher reflection on what has been read, how it was read, and how attitude and ability as readers have changed during their instruction time.

Step-by-Step

1. Journaling, no matter the form or length used, should be done DAILY.

2. Teachers should model journaling.

3. Have students reflect on their reading using prompts similar to the following
   - I wonder….
   - I began thinking of….
   - I suppose….
   - I don't see….
   - I like the idea of….
   - I know the feeling of….
   - I noticed….
   - I was surprised….
   - I thought….
   - If I had been….
   - Why did….
   - Maybe….
   - What if….?
   - This book was…. (explain using examples from the text)

4. Have students reflect on their learning using prompts similar to the following:
   - I found _____ difficult to overcome while reading this.
   - I used the following strategies throughout the reading for the following reasons and in the following ways…
   - _____ was confusing so I…
   - I didn't read the whole text because…

- The _____ did not turn out the way I expected because. . .
- A strategy I used today was _____.
- It did/did not help because. . . .
- I picked this book because…
- A good word to describe this book or my experience reading it would be…

5. Share examples or exemplars of effective log entries.

6. Have students use learning logs at different times for different purposes. Use them
   - before reading to activate prior knowledge and interest, to develop necessary questions and establish purpose for reading, or to paraphrase previous readings connected to new assignments.
   - during reading and discussing to allow students to interact with the text. This interaction allows for clarification of thoughts as students are reading or discussing.
   - after a discussion to promote the understanding of new ideas and to process information to higher levels of thinking by reflecting upon, responding to, or rephrasing the discussion into their own words.
   - after reading to identify and analyze strategies used to make meaning of the text, to make connections between the text and other sources, and to paraphrase ideas and understandings.

SAMPLE LEARNING LOG ASSIGNMENT

What It Should Have?

- How much you read in the 20 minutes?
- How difficult is the reading?
- Quotes from the reading.
- Questions on what was read.
- Things you figured out through your reading.
- Things that confused you.
- Are you easily distracted?
- Comprehension check. Do you remember (comprehend) what you read?

Why I Should Have It?

- To show improvement in your reading abilities.
- To prove your interest in the book and to document your understanding of the text.
- To establish a purpose for reading and to keep it authentic for you. You can answer your questions as you read.
- To answer questions from the past.
- To try to figure out the answers later when you are studying.
- To self-monitor so you can determine when you are getting distracted and what causes the distraction.
- To see if you're understanding what you read and to be able to compare it with others.

POINT-OF-VIEW STUDY GUIDES

Description: The **Point-of-View Study Guide** (Wood, 1988) requires students to read text from varying points of view to expand their perspectives through collaboration and prior knowledge. Essentially, students are not reading text as themselves but are assuming roles either directly or indirectly related to or affected by the text. The process of reading, therefore, becomes more personalized as students integrate and synthesize information related to their role into their understanding of text. The Point of View Guides utilize an interview form which encourages students to respond in their own words to the ideas and information in the reading. All content areas may construct guides for a variety of purposes and may adapt them to meet specific needs.

Step-by-Step

1. Identify appropriate perspectives for students to assume and provide them with a guiding concept or series of questions to answer as they read.

2. The guiding concept or series of questions help students focus on the important elements of the text. Use this as the study guide for reading. An example of a guiding concept in social studies might be The Process of Immigration. Student roles may be as an immigrant, a customs official, former immigrant, citizen, luggage of immigrant, or any other creative perspective selected by teacher or students.

Examples from an Algebra text might be . . . .

> How does your placement in the equation affect the outcome?
> If you were added instead of subtracted, how would this affect the outcome?

3. As students read, encourage them to identify points in the text that support their answers. Responses should be written from the first person point-of-view, elaborate on material from the text, and read as a dialogue or essay.

4. As students become proficient with this strategy, allow them to design the assignments.

Extensions/Variations

- All students may read a selection from the same point-of-view or students may be grouped to represent different points-of-view.
- Students may form panels and allow the rest of the class to interview them.
- Students may create oral presentations or written documents using technology, visuals, or other resources to share information.

GIST STATEMENTS
GIST (Generating Interactions between Schemata and Text)

Description: This strategy assists students with focussing on the main idea of the passage. Through class and group discussion, students have the opportunity to learn how others think as they state their ideas and reasons. Through this process teachers are able to check students' understanding of summarization and determine if students can pinpoint the main idea.

Step-by-Step

1. Assign students a short passage to read.

2. After reading have students write one statement that reveals the "gist" or main idea of the selection.

3. Discuss the reading and gist statements guiding students with questions such as "Is the passage mainly about a person, place, thing or idea?" Ask students if they agree. If not, have students explain what they feel was most important.

4. After discussion, have students write a one sentence gist statement summarizing what the class decided was the main idea.

5. Evaluate the gist statement to determine if students were able to state the main idea.

Extensions

- After writing two gist statements students write a justification for one over the other or explain how they came to an agreement.
- Students engage in reading chunked text and writing gist statements after each chunk. After completing the entire reading, students use gist statements to write a summary.

EXPRESS WRITING

Description: Express Writing is a short, focused writing in response to a specific prompt. As a pre-reading strategy, express writing helps to activate students' prior knowledge and provides a starting point for a class discussion or new lesson. Express writing serves as a connection to new concepts or ideas required for student learning. It can link previous learning experiences with current ones. While generally not graded, points (i.e., 10-20 points) may be awarded for completion. Express writing can be used as an informal assessment tool and is excellent preparation for timed writing examinations.

Step-by-Step

1. Formulate a statement or question related to the content for students to respond to within a specified amount of time, usually 5 to 10 minutes. When used as a starter or bellwork, express writing allows time for teachers to take care of business before beginning formal instruction.

   Used during or after reading, it allows students to think and reflect upon the concepts presented in the reading or the reading strategy being used to support the reading.

2. Students are assured that the purpose is for them to express their thoughts and ideas without laboring over the mechanics of writing although mistakes may be noted.

3. When the time limit expires, students may share their responses with a partner, engage in a class discussion, and/or turn them in for teacher review.

Extensions

- Teachers should read express writings. Some teachers circle mistakes and encourage students to identify and correct mistakes.

  Remember: These are not to be used for formal assessment, but repeated mistakes can lead to a writer's workshop where grammar skills are reviewed using express writings as the springboard.

- Use express writings as exploration for future writing assignments.
- Coordinate the topics over a week. Guide students through the process of organizing their express writings into an essay.

EXIT SLIPS

Description: Exit Slips are quick ways to invite student response after learning. Exit slips are completed at the end of a class period and are collected by the teacher as students leave the room. Generally, exit slips are anonymous with every student being required to turn one in prior to exiting the classroom. Exit slips provide quick feedback to the teacher about how students understood the lesson and/or what concepts might need further exploration in future lessons. Exit slips encourage students to reflect upon the lesson while providing quick feedback. It is important, whether students are anonymous or required to write their names on their slips, that students be encouraged to be honest. They need to be assured that their comments and concerns will be addressed.

Step-by-Step

1. Identify the type of response/feedback needed to assist student's learning: for example, did students seem confused, and need to ask questions.

2. Exit slips may be produced in advance or may be a question students respond to on a scrap sheet of paper.

3. Allow students to provide open feedback or have them use a stem such as the following:
   - Today I learned . . . .
   - I don't understand . . . .
   - I would like to learn more about . . . .
   - I need help with . . . .
   - A question I have is . . . .
   - Please explain more about . . . .
   - The most important thing I learned today is . . . .
   - Three things I learned today are . . . .
   - The thing that surprised me today was . . . .
   - I am still confused about . . . .
   - I wish . . . .
   - The best part of class today was . . . .

4. At the end of class direct students to complete an exit slip.

5. As students leave the classroom, collect the slips. Use them to assess student learning and to plan follow-up instruction.

Extensions

- At the next class session, use an exit slip or several, to begin instruction. This allows students to realize the importance of their comments.
- Allow students, when working in small groups, to submit one exit slip for the group's work.

VOCABULARY DEVELOPMENT

Description: Vocabulary knowledge is essential for reading comprehension. If students are unfamiliar with most words they read they have trouble understanding the text. A content area is distinguishable by its vocabulary. Learning vocabulary must be an integral part of learning academic content not a separate activity. Content area vocabulary must be mastered in order to remove potential barriers to students' understanding of texts as well as acquiring the language of a content area. Whenever possible students should generate their own vocabulary lists.

WORD BENCH
PREFIXES

a, an (L, not, without—atypical	inter (L, between, among)—interrupt, intervene
ab (L, from, away, off)—abscond	intra (L, within)—intramural
ad (L, to, toward)—advance	kilo (G, thousand)—kilometer, kilogram
ante (L, before, in front of)—antebellum	mega (G, large, million)—megalopolis, megatrends
anti (against, opposite)—antidisestablishmentarianism	mid (L, middle)—midtown, mid-century
apo (G, separate, around)—apogee	mis (L, wrong, bad)—mistake, misinterpret
be (L, against, to a great degree)—beset	milli (L, thousand)—millipede, millionaire
bi (G, two)—biannual	multi (L, many)—multitude, multiple
centi (L, one hundred)—century, centennial	non (L, not)—noncompliant, non-responsive
circum (L, around)—circumvent	ob (L, against)—object, obverse
co, com, con (L, together, with)—convene, cooperate	over (L, too much)—overspend, overdo
contra (L, against)—contradict, contrindicate	per (L, through, very)—permeate, perspective
de (L, away, from)—decamp, defrock	peri (G, around)—periscope, perimeter
deci (L, ten)—decimate, decimal	post (L, after)—postdate, post-war
dia (G, apart,opposite)—diametric, diagonal	pre (L, before, in order)—preview, predate
dis (L, away, from, not)—discount, disavow	pro (L, before, forward, in favor of)—prospect, provide
en (L, cause to be)—entrance, encase	re, retro (L, again, back)—retroactive, retrograde
epi (G, upon, after)—epicenter, epitome	sub, sur, sug, sup (L, under, beneath)---substitute, surrogate
equi (L, equal)—equality, equipoise	super (L, above, over, in addition)—supervisor, superman
extra (L, in addition)—extraordinary, extrasensory	syn (G, with)—synonym, synchronize
ex (L, out of, former, away)—exclude, exhume	trans (L, across, through)—transgress, transport
hemi (G, half)—hemisphere, hemidemisemiquaver	tri (L, three)—trimester, triangle
hyper (G, above, beyond, excessive)—hyperactive, hypertension	ultra (G, excessive, beyond)—ultramarine, ultrasound
hypo (G, under, less than normal)—hypothermia, hypoglycemia	un (L, not, the opposite of)—unnecessary, undone
in,il,im,ir (L, not, in, into, without)—incredible, illogical, immoral, irredeemable	

WORD BENCH
ROOTS I

act (L, to do)—active	neo (G, new)—neonatal, neon
agri (L, field)—agriculture	omni (L, all)—omnipotent, omniscient
anthropo (L, man)—anthropology, philanthropist	ped (L, foot)—pedestrian, pedal
aqua (L, water)—aquarium	poly (G, many)—polygamy, polymorphous
auto (G, self)---automobile, automatic	porto (L, to carry)—transportation, porter
bene (L, good)---beneficial	puls, pel (L, to drive)—pulsate, compel
biblio (G, book)---bibliography	quir, ques (L, to ask or say)—question, inquire
bio (G, life)—biology, biography	rupt (L, to break)—interrupt, rupture
ced, cess, ceed (L, to go or yield)---antecedent, proceed	sci (L, to know)—science, omniscient
duco (L, to lead)---deductive, aquaduct	scop (L, to see)—telescope, microscope
ferro (L, to bring, carry)—transfer, ferry	scrib, script (L, to write)—transcribe, inscription
fin (L, end)—final, finish	sect (L, to cut)—section, transsect
geo (G, earth)—geography, geology	sens (L, to perceive, to feel)—sensitive, sensory
graph, gram (G, to write)---graphology, telegram	sist (L, to stand)—insist, consist
grat, grac (L, pleasing)—gracious, gratitude	spec (L, to see)—spectacle, spectator
homo (L, human being)—homogenous, Homo sapiens	spir (L, to breathe)—inspire, respiration
hydra (G, water)—hydrant, hydrophobia	struct (L, to build)—construct, structure
jecto (L, to throw)—interject, trajectory	syn, sym (G, with, together)—synonym, sympathy
juncto (L, to join)—junction, conjunction	tech (G, skill)—technology, technician
mal (L, evil)—malediction, malignant	tele (G, far)—telecast, telephone
meter, metr (G, measure)—metronome, meter	ten, tain (L, to hold or contain)—contain, tent
micro (G, small)---microphone, microbiology	tend, tens (L, to stretch)—tension, contend
mit, mis (L, send)—transmit, mission	therm (G, heat)—thermal, thermometer
mono (L, one)—monotous, monocle	tract (L, to pull)—tractor, intractable
mov, mot (L, to move)—movable, motion	uni (G, one)—universe, uniform

WORD BENCH
ROOTS II

acri (L, bitter, sharp)—acrid	morph (G, form)—morpheme, amorphous (Mighty Morphin Rangers)
alto (L, high)---altitude, altimeter	mort (L, dead)—mortal, mortician
amicus (L, friend)—amicable	nova (L, new)—novel, innovation
amo (L, to love)—amatory	naut (G, ship, sailor), nautical, astronaut
astra (G, star)—astronaut	ortho (G, straight)—orthodontist, orthography
aud (L, to hear—auditorium	pac, pax (L, peace)—pacifist, pacify
bellus (L, war)---bellicose	pan (G, all)—pantheon, pan-American
capto (L, to take or seize)---capture	pater, patri (L, father)—paternity, patricide
chronos (G, time)---chronological, chronometer	pathos (G, feeling)—pathetic, pathology
cide (L, to kill)—homicide, suicide	pend (L, to hang)—pendant, suspend
cite (L, to call)—incite, recite	phil (G, love)—bibliophile, philanthropic
cogno (L, to know, recognize)—recognize, cognizant	phob (G, fear)—phobia, acrophobia
cred, creed (L, believe)---incredible, creed	phon (G, voice, sound)—telephone, phonics
demo (G, people)—democracy	plac (L, to calm)—placate, placid
dent, dont (L, tooth)---dental	plic (L, to fold)—pliable, explicate
dicto (L, speak)---diction, contradict	pod (G, foot)—podiatrist, tripod
facio (L, to do or to make)—manufacture, factory	polis (G, city)—politician, metropolis
fid (L, trust)---fidelity, infidel	pos, pon (L, to put or place)—transpose, position
flu (L, flow)---fluctuate, fluent	prim (L, first, basic)—primary, primal
formo (L, shape)---form, perform	psycho (G, mind)—psychotic, psychiatrist
frago (L, break)---fragment, fragile	pug (L, fist)—pugilist, pugnacious
frater (L, brother)—fraternity, fraternize	soror (L, sister)—sorority
fus (L, to pour,melt)—effusive, defuse	sta, stat (L, to stay)—stationary, status
gen, gene (L, race, family)—genealogy, gene	string, strict (L, to bind or tighten)—stringent, constrict
greg (L, flock, herd)—gregarious, egregious	theo (G, god)—theology, atheist
legis (L, law)—legislature, legitimate	vad, vas (L, to go)—evade, vascular
logos (G, word, study,speech)—biology, chronology	ven, vent (L, to come)—convene, adventure
luc, lumen (L, light)—lucid, illuminate	ver (L, truth)—veracity
macro (G, large)—macrobiotics	vert (L, to turn)—convert, reverse
magn (L, great, large)—magnificent, magnate	vid, vis (L, to see)—visual, video
manus (L, hand)—manuscript, manual	voc (L, to call)—vocal, vocation
mater (L, mother)—maternal, alma mater	volv (L, to roll or turn)—revolve, involve
	zoo (G, animal)—zoo, zoology

WORD BENCH
SUFFIXES

Noun Suffixes	Adjective Suffixes
-acy, acity---having the quality of	-able, ible—worthy of or inclined to, able to
-ance, ation, ion, ism, dom, ery, mony, ment, tion—quality, state, or condition	-aceous, ative, ish, ive, itious—pertaining
-ant, ac---one who	-al—relating to
-archy---government	-cle—small
-ard, art---one who does something to excess	-escent—becoming
-aster—inferiority or fraudulence	-est—most
-ate—state or quality of	-ferous—bearing, producing
-ation—action or process of	-fic—making, causing, creating
-bility—state or quality of being	-fold—multiplied by
-chrome—pigment or color	-form—having the form of
-cide—act of killing	-ful—full of, having the quality of
-crat—ruler	-genous—generating or producing
-er, eer, ier, ster, ist, trix—agent, doer	-ic—characteristic of, relating to
-gram—item written or drawn	-ive—inclined to
-graphy—something written about a specific science or field	-less—lacking, without
-hood—state or quality of	-most—most
-ice—act of, time of	-ous, ose—possessing, full of
-ics—science or art of	-wise, ward—manner, direction, position
-itis—inflammation	**Verb Suffixes**
-latry—worship of	-ate—to create
-meter—measuring device	-ed—forms the past tense of a verb
-metry—process of measuring	-en—to make; refers to a past completed action
-ness—state, condition, quality	-ify—to make
-nomy—study or science of	-ing—a progressive or continuous action
-ology, logy—science, study of, theory	-ize—to make
-ory, orium—place where	**Adverb Suffixes**
-phobia—fear	-ly—in the manner of
-phore—bearer or producer	
-scope—instrument for observing	
-tude—state or quality of	
-ure—action or process	

WORD SORTS

Description: When students participate in a Word Sort, they are classifying words into categories based on their prior knowledge and experience. Derived from *Taba's (1967)* List-Group-Label strategies, word sorts operate on the assumption that by sorting words into categories, students learn to organize and remember vocabulary and concepts. Word Sorts are identified as open or closed. In a Closed Word Sort, the categories are labeled. Closed sorts tend to be easier for students since all of the words must fit under one of the selected categories. In an Open Sort, students determine the categories through analysis of word characteristics and word meaning. Some of the words in an Open Sort may be used for category heading, or students may select their own headings.

Step-by-Step

1. Select 15-20 vocabulary words important to the lesson including both familiar & unfamiliar words.

2. Words are placed on note cards for students to organize into categories, or words are posted with students sorting them on paper.

3. Students may work individually at first and then groups of 3-5 students, or they may be grouped for the entire activity.

4. For a Closed Word Sort, provide students with the categories. For an Open Word Sort, have students read the words and organize them into categories that make sense to them. Students need to be able to defend their classifications.

5. Provide students approximately 10 to 15 minutes to complete the sort. Invite students to share their classifications and explain their thinking.

Extensions

- Sorts can be used before reading to activate prior knowledge and establish a purpose for reading.
- Sorts can be used as an after-reading activity to synthesize and analyze learning.
- Use sorts before, during, and after reading to allow constant crosschecking of words to enhance metacognition.
- When using word sorts before and after reading, allow students to reclassify their words. This also enhances metacognition.
- Have students share their reflections.
  - Were their initial classifications correct?
  - Did they make changes?
  - Why did they make changes?
- Number sorts

SUPPORTING STRATEGIES FOR TEACHER USE

ANTICIPATION GUIDES

Description: Anticipation Guides prepare students to read by activating their prior knowledge and asking them what they think about certain ideas. The strategy inspires lively discussions that not only prepare students to read but allows them to see how their ideas and beliefs compare with those of their classmates, the author, and society at large. Anticipation Guides may also be used to prepare students with limited prior knowledge to read texts. They challenge students' preconceived notions about a subject; understanding of that subject.

Before creating an anticipation guide, decide whether you want students to identify, evaluate or determine.

Step-by-Step

1. Select a major concept or topic from the up-coming reading selection. Create five to seven statements related to the topic. Statements should challenge or support students' preconceived ideas related to the topic in the materials to be read.

2. Give a copy of the statements to each student.

   NOTE: The statements can be created in two ways. One way is to place a blank line in front of the statement, allowing the student to check only those he/she agrees with. The second way is to have "agree" and "disagree" blanks in front of each statement.

3. Direct students to complete the anticipation guide prior to reading the selection. Let students discuss the statements and why they responded as they did.

4. Have students read the selection upon which the statements are based.

5. After reading allow students to review their responses and discuss whether or not their ideas have changed as a result of the reading.

6. Lead students into an understanding that it is common for their ideas to change after reading and discussing the selection.

Extensions

Consider the following possible response options:

- Strongly Disagree…Strongly Agree (with statements)
- Likely…Unlikely or Certain…Impossible (probability as it relates to an event or person)
- True…False or Agree…Disagree
- Check the names of all to whom this would apply (when evaluating a range of people, countries, or organizations according to certain criteria).

ANTICIPATION GUIDES
Math
Multiplying Fractions

	Agree	Disagree	
1.			When multiplying fractions the first step is reducing them to their lowest terms.
2.			When multiplying fractions invert the second number and multiply.
3.			After multiplying fractions reduce the product to lowest term or mixed numeral.
4.			When multiplying a fraction by a whole number the denominator of the whole number is always one.
5.			The product of two proper fractions is always more than one.
6.			Before multiplying two fractions you must find the lowest common denominator.

RECIPROCAL TEACHING

Description: Reciprocal Teaching allows students to work together and "teach" each other as they assume responsibility for the discussion. When using this strategy, teachers' model the use of four comprehension activities – generating questions, summarizing, predicting, and clarifying – while leading a dialogue. Students then assume the role of teacher. A key to the effectiveness of reciprocal teaching is the adjustment of the task as students experience difficulty. As difficulties occur the teacher provides assistance by discussing the task (i.e. read and think aloud). The teacher slowly withdraws support as the lesson progresses enabling the students to continue on their own.

Step-by-Step

1. Explain to students the concept of reciprocal teaching-that we learn best what we have to teach others.

2. Create appropriate questions related to the text.

3. Follow steps of DR-TA.

4. Gradually decrease teacher support allowing students to increase their participation. Ask for "teacher" volunteers to lead subsequent discussions.

5. Monitor and refocus the instruction as needed.

Extensions

- Use discussion, quizzes, and observation to determine if material is understood. Observation should include monitoring the involvement of individual students and their responses. Use this to determine students' levels of comprehension.
- Use the jigsaw strategy and have groups use reciprocal teaching to share information.

GUIDED READING
(Fountas & Pinnell, 1996)

Description: The purpose of **Guided Reading** is to provide a framework or scaffold in which students are given assistance in order to read a selection successfully. Students' reading is guided and reguided until they can successfully guide themselves.

Step-by-Step

1. Students preview text and identify unfamiliar words.

2. The class discusses strategies that can be used to make meaning from the text.

3. Students will then decide which strategies will best support their personal reading.

4. Teachers are the facilitators as students' connect their personal knowledge and reading strategies to the words in the text.

5. Teachers regroup students for small group instruction. In mathematics, students who are struggling with integers are grouped for specialized instruction to achieve mastery. In science as students struggle with the concept of osmosis, the teacher provides them with group instruction using a different print or non-print text.

6. Whole group and individual students share how they used strategies, reflect on success and contemplate pitfalls.

   Finally, students return for whole group instruction for final reflections and evaluations.

GUIDED READING PROCEDURE (GRP)
(Manzo, 1975)

Description: The **Guided Reading Procedure (GRP)** emphasizes close and focused reading of a text. It requires students to gather information and organize it around important ideas. It requires accuracy as students reconstruct the author's message. With a strong factual base, students work from a common and clear frame of reference. They are in a position to elaborate thoughtfully on the text and its implications. The GRP is a highly structured activity, and should be used sparingly as a training strategy – perhaps once a week at most. It is used to emphasize the importance of rereading text.

Step-by-Step

1. Prepare students for reading by clarifying key concepts. Determine what students know and don't know about the topic or concept to build appropriate background. Establish a purpose for the reading.

2. Assign a reading selection for high school students of 1,000 to 2,000 words or approximately 10 minutes. Give this direction to focus on reading behavior, "Read to remember all you can."

3. As students complete the reading have them turn their books face down. Ask them to share what they remember in the order it was presented. Record it on the chalkboard/overhead.

4. Help students recognize that there is much that they have not remembered or have misrepresented. Simply, there are implicit inconsistencies that need correction and further information must be considered. Two important questions to ask now are. . . .
   - Did you leave out any information that might be important?
   - Did you mix up some facts on the list?

   This reinforces the importance of selective rereading and rehearsal because of the limitations imposed by short-term memory.

5. Redirect students to the reading and review the selection to correct inconsistencies and add further information.

6. Organize the recorded details into some kind of outline. Ask guiding, non-specific questions to facilitate the process . . . .
   - What were the important ideas?
   - Which came first?
   - What facts on the board/overhead support it?
   - What important point was brought up next?
   - What details followed?

7. Extend questioning to stimulate an analysis of the material and a synthesis of the ideas with previous learning.

8. Provide immediate feedback, such as a short quiz, as a reinforcement of short-term memory.

INTERACTIVE READING GUIDES

Description: The **Interactive Reading Guide** assists students in the productive reading of text materials. Interactive Reading Guide a variation of the study guide involves students in working with partners or small groups to find the essential ideas in their reading. Identifying the essential ideas, however, is a difficult task for many students. They are confused by the large amount of information they encounter in textbooks and find it difficult to differentiate key ideas from supporting details. Students benefit from a few clues to direct them through the text. Interactive Reading Guides proved these clues allowing students to learn from text that may be too difficult for independent reading.

Step-by-Step

1. Preview student's reading selection determining major information to be learned and to locate possible problems for understanding. Be especially aware of difficulties struggling readers might have with the material.

2. Notice text features that students might overlook such as pictures, charts, and graphs.

3. Determine any communication gap between text and student.
   - Does the author assume knowledge that some students may lack?
   - Does the author introduce ideas and vocabulary without sufficient explanation or examples?
   - Does the author use language or sentence styles that may be difficult for some students?

4. Construct an Interactive Reading Guide for students to complete with partners or in small groups. Design the guide to help students decide where to focus their attention during reading and to support their learning when the text might prove too challenging. Pose questions that compel students to think and reflect about the concepts, to make meaningful connections and draw conclusions. This will motivate students to problem-solve with one another in order to ascertain appropriate responses.

5. Chunk the text. Identify how the reading should be done. Some passages may be read silently while others are read aloud. Some passages may be identified for close reading or for skimming.

6. As students read, they are interacting with the text because they are being prompted by the Interactive Study Guide. Guides serve as organized notes for discussions and follow-up activities, and also make excellent review for exams.

INTERACTIVE READING GUIDES
EXAMPLES

Section A: The Trouble With Widgets

1. Class: Listen and follow along as I read this passage to you. Then based on what you remember respond to these questions. If you need to, you can locate them in the article.
   - Where is this problem occurring?
   - What is the problem?
   - List four factors contributing to the problem.

Section B: Early Widgets

1. Partners: Read paragraph one silently and decide on an answer to the following question.
   - How were early widgets used?
2. Partner 1: Read paragraph two aloud.
   Partner 2: Listen and decide how to answer the following questions:
   - Were early widgets seen as a good thing?
   - Why or why not?
3. Partner 2: Read paragraph three aloud.
   Partner 1: Listen and decide how to answer the following questions:
   - Did the public want more widgets?
   - What clues in the text help you figure this out?
4. Partners: Read paragraph 3, 4, and 5 . . .
   While the formation of an Interactive Study Guide may take time consider the student benefits.
   - Students are conditioned to read materials at different rates for various purposes, reading some sections carefully and skimming others.
   - Students use partners as resources for tackling reading selections and discussing the content while they read.
   - Struggling readers are especially supported by Interactive Reading Guides.

Extensions

Students create the guides for each other.

JIGSAW

Description: The **Jigsaw** strategy involves students reading different selections and sharing the information from that reading with a group or whole class. The reading assignment can be divided among group members to allow some students to receive more challenging text. A **Jigsaw** may focus students in one of three main ways.

1. Students jigsaw to read different sections of a textbook chapter, different short stories following a similar theme, or stories by the same author.

2. Students might jigsaw around a certain topic of research using multiple text to gather information. Some examples include health issues of obesity, problems involving the environment, causes of World War I or how to determine the amount of tile needed to cover a floor.

3. Students jigsaw to research independently within a group. Each group would be responsible for one area of study within a generalized topic.

Step-by-Step

1. Determine the text to be used either a textbook chapter or identify a range of materials related to significant topics addressed in a lesson. Consider the skill level of students to determine appropriate text difficulty and satisfaction.

2. Organize students into cooperative groups, assigning each group their reading selection.

3. Students read selections independently. Encourage students to make notes on the text or use sticky notes to interact with the text.

4. Upon completing the selections, students who read the same text are grouped together to discuss the contents, concepts, information and to share their notes. Students will then create a summary of all the information gathered to share. They might summarize key points, design a concept map, use a graphic organizer, or highlight a set of notes. Teachers may collect these and copy them for the class giving each student his/her own personal set.

5. Students return to their original groups and each member shares his/her information from the assigned selection. The rest of the group is responsible for learning each section. When each member has presented, the entire reading selection has been covered.

VISUAL TO PRINT

Description: Content area text is complicated because it requires that students possess some level of background knowledge. Without this knowledge, students lack the scaffold necessary to drive meaning from text. Also, many readers struggle to make sense of abstractions encountered in content texts. Typically the more difficult the text, the more abstract the concepts encountered to challenge readers. Through the use of visuals, especially photography, art, and video, teachers can eliminate abstractions and provide a scaffold to move students through text.

Note: This is a strategy that can be used anytime students are reading. Therefore, it does not have a step-by-step process. Observations of teachers who use this strategy reveal its benefits. Once while reading Of Mice and Men students could not grasp a Cupie doll. The teacher passed around a picture of such a doll. In math, students were experiencing difficulties understanding fractions. The teacher use pic graphs from magazines to assist student comprehension.

- Use visuals /videos to help students make the abstract more concrete. This can help students quickly focus on concepts to develop understandings that will help them prepare to read or better understand what they just read.
- Use visuals/videos in the written text whenever possible. For example while reading Romeo and Juliet, use scenes from various film versions or pair slave narratives with scenes from Roots or drawings of the auction block. Consider using documentaries and graphics with math and science concepts.
- Use visuals/videos to do what print cannot. When reading a play or historical piece, use video versions of the same scene or a historical depiction so that students can see and study various interpretations of the text.
- Use visuals/videos before reading if the material is unfamiliar or abstract. Depending on the topic, students can activate prior knowledge by discussing visuals or viewing a well-chosen video clip.
- Use visuals/videos while reading to provide students with a wider range of understanding and to increase reader engagement (i.e. Discovery Channel, History Channel).
- Use visual/videos after reading to supplement the reading with additional information or the same information in a different medium.
- Use visuals/videos as a way to provide an alternative version of the text against which to compare the printed text.
- Treat visuals/videos as a text where students utilize the same strategies and skills to derive meaning. Many strategies including graphic organizers lend themselves to the “reading” of non-print text.
- Have students create their own visuals to support text.

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